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EFFECTIVE USE OF HIGH WATER TABLE AREAS FOR SANITARY LANDFILL. VOLUME II

R. A. Beluche, et al

VTN, Incorporated

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16. Abstracts

The objective of this project was to demonstrate that a landfill in a high water table area could be satisfactorily engineered and operated to produce a minimal impact on the surrounding environment. Initial input was centered on design and site engineering. Subsequent evaluation included detailed accumulation and analysis of physical, chemical and biological data on surface and groundwater parameters both on and off site. The site development included two types of disposal areas to evaluate engineering, operation, cost and environmental assessment. Demonstration cells were in an area that had been dewatered. Control cells were in an undrained area and penetrated the shallow aquifer with some waste deposited below the water table. A geologic and hydrologic evaluation of the site was also performed in order to determine the interconnection of the shallow aquifer with the Floridian aquifer. The report contains data accumulated over a two year period after initial refuse was deposited. Additional monitoring is planned and scheduled to data input for a period of three more years.

17. Key Words and Document Analysis. 17a. Descriptors

Refuse,disposal, Lagoon, Observation wells

17b. Identifiers/Open-Ended Terms

High water table, Hydrogeology, Leachate, Gas, Ground and surface water monitoring, Dewatered cell, Sanitary Landfill, Pollution

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EFFECTIVE USE OF HIGH WATER TABLE AREAS FOR SANITARY LANDFILL

Final Report

Volume II

This final report (SW-57d.1) on work performed under solid waste management demonstration grant no. S-802283 was prepared by
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1973

ACKNOWLEDGEMENT

This is the second volume of the Final Report of a three-year demonstration project, authorized by the Board of County Commissioners, Orange County, Florida, and funded in part by Grant No. S-802283 from the Environmental Protection Agency, Office of Solid Waste Management Programs. Volume I presents the project background, discussion of conclusions, site selection, sanitary landfill development and operation, environmental assessment, economic assessment, and environmental monitoring procedures. Volume II contains all data collected that are related to the environmental assessment of the project.

The Demonstration Project is an important element of the County's Solid Waste Disposal Program. The program is under the responsibility and authority of Mr. C. L. Goode, Public Works Administrator, and under the supervision of Mr. M. W. Hall, Superintendent, Solid Waste Disposal System.

Orange County retains VTN INC. for planning and engineering and management consultant services concerned with the orderly progress of the Solid Waste Disposal Program. These services include the master planning for the landfill site, the design of landfill improvements, the selection of equipment, and the formulation of recommendations for operational procedures.

The Solid Waste Disposal System, Orange County, provides the requisite personnel and equipment for the conduct of landfill operations and maintains accurate records concerning waste quantities handled and the construction and operation costs incurred. Mr. Gary I. Bergstrom, Biologist with the Orange County Pollution Control Department, under the supervision of Mr. C. W. Sheffield, County Pollution Control Officer, had the responsibility for sampling and testing surface and ground waters.

Faculty and students at Florida Technological University, working under the direction of Dr. Waldron McLellon, Civil Engineering and Environmental Sciences Department, monitor organic and bacteriological parameter changes resulting from sanitary landfill construction in a high water table area. Dr. David Vickers and Dr. Julius Charba of the Biological Sciences Department contributed significantly to the environmental assessment program. The Florida Technological University participants have conducted a thorough literature search and reviewed available information on similar disposal operations.

The U. S. Department of Agriculture, Soil Conservation Service, at the request of the Board of County Commissioners, assisted in the preparation of geological and soil studies at the demonstration site. In support of these studies, Mr. L. Orlando Rowland, a certified consulting geologist, prepared a supplemental study. Additionally, Ardaman and Associates, consulting soil scientists, prepared a report on surface soil, geological, and ground water conditions existing at the demonstration site. These studies were utilized in planning landfill improvements. Portions of the findings are incorporated in this report.

The assistance and cooperation extended by the many local, state and Federal officials who were contacted in matters related to the demonstration project are gratefully acknowledged.

Ramon A. Beluche, Ph.D.
Vice President, VTN INC., and
Demonstration Project Director

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TABLE 1

SURFACE WATER
PHYSICAL AND CHEMICAL DATA
OCTOBER 1970 THROUGH JUNE 1973

Date	pH Lab	Alk as $CaCO_3$ mg/l	Acid as $CaCO_3$ mg/l	TDS mg/l	Cl^- mg/l	Hardness as $CaCO_3$ mg/l	Phosphate Total mg P/l	Phosphate Ortho mg P/l	Nitrogen NO_3 mg N/l	Nitrogen NO_2 mg N/l	Nitrogen NH_3 mg N/l	Nitrogen ORG mg N/l	Temp C	Turb JTU	Solids Total mg/l	Solids Susp mg/l
Pond A																
7-19-71	4.6	1	11	80	---	5.7	.34	.04	.00	.004	.00	.73	31	7.0	151	71
8-10-71	6.2	10	12	66	13	---	.01	.00	---	.007	.14	.02	32	6.1	81	15
9-8-71	5.9	8	50	457	16	4.5	.48	---	---	.005	.00	---	30	---	656	199
9-14-71	6.2	3	41	126	9	5.9	.10	.07	---	.004	.01	.37	31	26.0	142	16
10-11-71	6.6	3	37	49	17	6.0	.17	.06	---	.000	.31	.72	27	37.0	80	31
11-8-71	---	---	---	68	11	15.6	.14	.11	---	.002	.00	.98	29	50.0	72	4
12-13-71	---	---	---	45	10	8.1	---	.00	---	.004	.00	.19	23	3.7	47	2
1-10-72	---	---	---	62	15	5.6	---	.08	---	.000	.35	.67	22	4.5	71	9
2-14-72	---	---	---	---	12	7.6	.04	.01	---	.004	.25	5.43	18	6.0	---	---
3-13-72	6.5	5	33	22	7	9.2	.10	.07	---	---	.00	.75	21	3.1	25	3
4-10-72	6.1	5	14	50	---	18.0	.09	.05	.05	.008	.31	.95	21	4.2	76	26
5-15-72	4.4	---	---	58	30	9.0	---	---	---	---	.00	.53	26	6.0	61	3
6-12-72	---	---	---	42	---	---	---	---	.12	.002	.00	.55	27	5.7	66	24
7-10-72	6.3	5	11	27	---	15.7	.05	.04	.07	.004	.13	.79	23	30.0	67	40
8-14-72	6.3	7	13	39	12	12.4	.03	.03	.05	.005	.04	.59	30	6.0	70	31
9-11-72	5.9	7	9	42	10	9.4	.05	.05	.09	.003	.00	.51	27	---	86	44
10-9-72	5.9	5	7	---	10	15.3	.06	.06	.04	.005	.00	.90	26	49.0	---	26
11-13-72	5.6	5	9	35	12	13.7	.03	.01	.10	.001	.00	.62	24	51.0	58	23
12-11-72	5.7	3	7	41	14	11.5	.18	.14	.12	.003	.00	.38	24	21.0	42	1
1-15-73	5.7	3	5	33	---	10.5	.06	.06	.35	.002	.72	.73	12	11.0	47	14
1-22-73	4.6	1	32	91	16	14.0	.02	.02	.25	.003	.35	.57	24	7.5	99	8
2-19-73	5.6	3	3	---	15	10.9	.04	.04	.22	.004	.10	.48	15	14.0	58	18
3-12-73	5.7	5	2	53	16	10.8	.02	.00	---	---	.00	.33	25	4.0	64	11
4-9-73	5.2	4	10	44	13	14.3	.08	.04	.08	.006	.63	1.03	24	48.0	67	20
5-14-73	5.9	10	5	56	16	18.2	---	---	.07	.004	.55	1.32	25	14.0	65	9
6-11-73	5.8	5	8	87	19	15.9	.06	.03	.04	.015	.12	1.15	26	19.0	97	10

TABLE 1 (CONTINUED)

SURFACE WATER
PHYSICAL AND CHEMICAL DATA
OCTOBER 1970 THROUGH JUNE 1973

Date	pH Lab	Alk as $CaCO_3$ mg/l	Acid as $CaCO_3$ mg/l	TDS mg/l	Cl^- mg/l	Hardness as $CaCO_3$ mg/l	Phosphate Total mg P/l	Phosphate Ortho mg P/l	Nitrogen NO_3 mg N/l	Nitrogen NO_2 mg N/l	Nitrogen NH_3 mg N/l	Nitrogen ORG mg N/l	Temp C	Turb JTU	Solids Total mg/l	Solids Susp mg/l
Pond Effluent																
9-14-71	6.6	4	45	110	10	5.9	.11	.09	---	.002	.00	.80	31	---	117	7
10-11-71	6.8	3	28	3	11	7.5	.46	.05	---	.001	.00	.58	27	32.0	47	44
11-8-71	---	---	---	323	14	22.7	.13	.11	---	.001	.08	---	29	65.0	437	114
3-13-72	---	---	---	40	8	10.4	.06	.03	---	---	.60	.70	22	3.1	40	0
12-13-71	---	---	---	39	10	13.9	---	.00	---	.007	.22	1.22	23	2.6	42	3
1-10-72	---	---	---	62	---	7.7	1.28	.06	---	.000	.00	.42	22	3.1	73	11
2-14-72	---	---	---	---	---	---	.51	.00	---	.004	.20	3.07	18	5.4	---	---
5-15-72	6.0	---	---	64	21	8.0	.01	---	---	---	.00	.40	26	9.8	66	2
7-10-72	6.2	6	9	42	---	12.7	.05	.04	.05	.003	.06	.68	22	34.0	69	27
8-14-72	6.3	6	12	40	11	17.8	.03	.03	.07	.007	.06	.50	31	7.6	66	26
9-11-72	6.3	6	5	---	10	7.8	.04	.04	.10	.003	.00	.35	27	---	---	14
10-9-72	6.0	6	6	60	10	10.3	.06	.02	.02	.003	.00	.38	26	49.0	81	21
11-13-72	5.9	4	7	28	11	11.4	.02	.00	.15	.003	.00	.50	24	33.0	35	7
12-11-72	5.9	5	9	25	15	11.3	.14	.06	.18	.005	.80	.73	24	13.0	30	5
1-22-73	5.5	6	3	38	13	8.8	.04	.02	.19	.001	.00	.22	24	13.0	54	16
2-19-73	5.9	3	4	---	14	9.8	.02	.00	.17	.002	.00	1.12	15	2.5	92	3
3-12-73	5.9	6	5	57	15	8.4	.02	.00	---	---	.00	.30	25	3.0	65	8
4-9-73	5.8	3	4	41	15	13.7	.06	.02	.03	.002	.37	.77	24	19.0	46	1
5-14-73	5.6	9	6	45	15	14.2	---	---	.06	.004	.20	.70	25	9.0	46	1
Station 1																
4-5-71	6.4	10	26	477	---	---	.02	.00	.05	.005	.37	.00	23	---	653	176
7-19-71	4.1	---	31	3	---	10.8	.96	.10	.00	.017	.00	1.52	31	23.0	99	96
8-2-71	---	---	---	166	13	---	.13	.11	---	.004	.06	.08	32	8.5	188	22
9-8-71	6.4	19	130	543	22	20.3	.48	---	---	.011	.20	.73	30	35.0	586	43
9-14-71	7.6	---	43	103	12	11.1	.05	.01	---	.000	.00	.70	31	---	111	8
10-11-71	7.6	26	33	52	20	13.5	.05	.00	---	.022	.24	.50	25	30.0	52	0
11-8-71	---	---	---	302	20	52.2	.06	.26	---	.003	1.13	2.68	29	40.0	417	115
12-13-71	---	---	---	118	18	34.0	---	.00	---	.004	.19	1.08	23	2.6	124	6

TABLE 1 (CONTINUED)

SURFACE WATER
PHYSICAL AND CHEMICAL DATA
OCTOBER 1970 THROUGH JUNE 1973

Date	pH Lab	Alk as $CaCO_3$ mg/l	Acid as $CaCO_3$ mg/l	TDS mg/l	Cl^- mg/l	Hardness as $CaCO_3$ mg/l	Phosphate Total mg P/l	Phosphate Ortho mg P/l	Nitrogen NO_3 mg N/l	Nitrogen NO_2 mg N/l	Nitrogen NH_3 mg N/l	Nitrogen ORG mg N/l	Temp C	Turb JTU	Solids Total mg/l	Solids Susp mg/l
Station 1 (Cont.)																
1-10-72	---	---	---	119	17	25.3	.55	.23	---	.000	.50	2.10	21	2.9	119	0
2-14-72	---	---	---	40	23	17.6	---	.03	---	.006	1.50	14.15	18	3.6	62	22
3-13-72	---	---	---	63	11	16.2	.04	.03	.03	.002	.78	.70	21	3.1	63	0
4-10-72	6.4	14	14	76	---	19.8	.98	.05	.03	.004	.18	1.10	21	6.6	83	7
5-15-72	6.6	---	---	53	---	8.4	.01	---	---	---	.00	.50	26	4.5	57	4
6-12-72	---	---	---	13	---	39.6	.23	.00	.10	.003	.00	.33	26	4.5	14	1
7-10-72	6.2	10	19	60	---	15.1	.02	.01	.06	.003	.17	.66	23	7.5	85	25
8-14-72	6.1	12	14	43	13	19.2	.02	.01	.05	.003	.00	.23	29	7.9	58	15
9-11-72	4.5	0	17	157	11	15.1	.04	.04	.13	.003	.04	1.08	25	---	165	8
10-9-72	4.4	0	35	240	13	18.5	.08	.08	.04	.003	.10	1.03	24	16.0	248	8
11-13-72	5.2	5	18	49	13	15.1	.02	.00	.15	.002	.17	.50	24	12.0	50	1
12-11-72	5.1	3	35	65	17	14.8	.20	.12	.15	.003	.00	.32	23	9.0	66	1
1-15-73	5.0	2	18	99	12	20.1	.08	.02	.56	.005	.00	.63	12	3.0	105	6
1-22-73	5.0	3	5	43	14	11.3	.02	.02	.23	.001	.00	.20	23	15.0	47	4
2-19-73	4.2	0	27	33	18	14.6	.04	.02	.14	.002	.37	.65	15	10.0	41	8
3-12-73	4.7	1	23	96	17	13.7	.02	.00	---	---	.00	.53	25	2.0	101	5
4-9-73	5.3	5	20	79	15	15.9	.04	.02	.11	.005	.00	.50	22	10.0	79	0
5-14-73	5.3	9	16	48	15	14.4	---	---	.05	.002	.18	.73	24	4.0	50	2
6-11-73	5.2	10	28	62	14	14.3	.02	.00	.03	.002	.03	.27	26	3.0	63	2
Station 2																
10-7-70	5.9	17	35	95	13	---	---	---	---	.005	---	---	28	60.0	137	42
10-12-70	5.9	8	22	---	---	---	.13	.04	.05	.004	.81	4.60	28	250.0	---	---
10-13-70	6.3	17	22	---	---	---	.18	2.92	.05	.004	.92	4.37	20	320.0	---	---
10-28-70	6.5	44	12	54	15	---	.10	.01	.04	.007	.07	.50	27	34.0	70	16
11-9-70	6.8	28	17	140	21	---	7.16	6.34	.88	.298	.03	.45	22	60.0	186	46
4-5-71	6.7	23	17	---	38	---	.95	1.65	.07	.010	.34	2.24	---	700.0	---	---
5-3-71	5.9	8	8	84	---	---	4.52	4.52	.02	.009	.28	.87	26	40.0	87	3
7-19-71	7.4	65	---	---	5	---	3.76	1.54	.02	.082	---	---	31	---	---	---

TABLE 1 (CONTINUED)

SURFACE WATER
PHYSICAL AND CHEMICAL DATA
OCTOBER 1970 THROUGH JUNE 1973

Date	pH Lab	Alk as $CaCO_3$ mg/l	Acid as $CaCO_3$ mg/l	TDS mg/l	Cl^- mg/l	Hardness as $CaCO_3$ mg/l	Phosphate Total mg P/l	Phosphate Ortho mg P/l	Nitrogen NO_3 mg N/l	Nitrogen NO_2 mg N/l	Nitrogen NH_3 mg N/l	Nitrogen ORG mg N/l	Temp C	Turb JTU	Solids Total mg/l	Solids Susp mg/l
Station 2 (Cont.)																
8-2-71	—	—	—	115	21	—	.16	.11	—	.004	.06	.07	30	11.0	115	0
9-14-71	7.5	16	—	65	16	19.0	.05	.02	—	.002	.20	.30	31	—	75	10
10-11-71	7.6	20	—	123	17	57.5	1.35	1.16	—	.007	1.39	1.31	25	3.7	141	18
11-8-71	—	—	—	6	21	47.7	.54	.11	—	.003	1.92	2.44	29	50.0	303	297
12-7-71	—	—	—	122	18	28.4	—	.00	—	.002	.00	.44	23	4.5	122	0
1-10-72	—	—	—	180	22	59.0	1.55	2.92	—	.004	1.35	3.10	20	3.4	186	6
2-14-72	—	—	—	92	25	30.8	1.37	.01	—	.007	.42	2.34	18	4.5	111	19
3-13-72	—	—	—	91	13	24.3	.32	.11	.01	.003	.70	1.10	18	39.0	91	0
4-10-72	6.8	13	13	96	—	28.8	.76	.01	.03	.003	.00	1.30	21	8.8	109	13
5-15-72	7.3	—	—	88	—	22.7	.01	—	—	—	.04	.40	26	7.8	91	4
6-12-72	—	—	—	43	—	24.8	.14	.00	.13	.002	.00	.43	28	5.1	45	2
7-10-72	6.6	14	14	79	28	20.7	.26	.26	.07	.006	.75	.09	23	7.9	91	12
8-14-72	6.4	15	13	64	21	26.1	.02	.02	.08	.004	.04	.35	29	6.8	82	18
9-11-72	5.9	12	13	148	16	25.6	.30	.28	.16	.013	.00	1.16	25	—	165	17
10-9-72	4.7	3	30	159	13	20.9	.12	.12	.10	.002	.00	1.12	24	6.0	166	7
11-13-72	5.9	10	19	84	15	28.4	.05	.02	.15	.002	.00	.67	24	8.0	85	1
12-11-72	5.8	7	31	98	19	21.0	.22	.08	.18	.003	.00	.38	23	11.0	99	1
1-15-73	5.4	4	19	115	19	23.3	.04	.04	.30	.005	.00	.73	11	4.0	123	7
3-12-73	5.7	11	11	99	17	24.2	.04	.02	—	—	.00	1.40	25	4.0	119	20
Station 3																
10-7-70	7.2	117	22	218	37	—	—	—	—	.014	—	—	27	11.0	220	2
10-12-70	7.3	115	16	193	37	—	—	—	.04	.010	9.78	.81	26	10.0	358	165
10-13-70	7.1	90	18	233	32	—	8.21	6.99	.15	.086	1.61	.81	26	6.0	360	127
10-28-70	6.8	71	24	192	28	—	—	—	.53	.002	.14	.71	24	12.0	193	1
11-19-70	7.1	78	21	—	36	—	.02	.00	.06	.004	2.22	.44	21	6.0	245	—
4-5-71	7.4	76	10	340	19	—	4.25	3.72	.05	.024	5.28	1.87	—	40.0	369	29
5-4-71	7.2	119	38	113	—	—	5.55	5.74	.01	.021	7.48	4.02	24	—	141	28

TABLE 1 (CONTINUED)

SURFACE WATER
PHYSICAL AND CHEMICAL DATA
OCTOBER 1970 THROUGH JUNE 1973

Date	pH Lab	Alk as $CaCO_3$ mg/l	Acid as $CaCO_3$ mg/l	TDS mg/l	Cl^- mg/l	Hardness as $CaCO_3$ mg/l	Phosphate Total mg P/l	Phosphate Ortho mg P/l	Nitrogen NO_3 mg N/l	Nitrogen NO_2 mg N/l	Nitrogen NH_3 mg N/l	Nitrogen ORG mg N/l	Temp C	Turb JTU	Solids Total mg/l	Solids Susp mg/l
Station 3 (Cont.)																
7-19-71	6.4	67	36	139	8	61.0	2.61	2.51	.02	.068	.71	5.89	29	40.0	159	17
8-2-71	---	---	---	97	25	---	.81	.48	---	.062	---	---	30	8.8	108	11
9-14-71	7.3	11	44	135	16	44.7	.59	.51	---	.028	.00	2.28	30	---	142	7
10-11-71	7.3	13	40	105	16	48.8	.82	.77	---	.004	.88	1.07	25	4.5	120	15
11-8-71	---	---	---	204	21	59.5	.11	.10	---	.004	1.19	3.43	28	40.0	268	64
12-13-71	---	---	---	139	14	37.4	---	.00	---	.004	.32	.23	23	5.7	141	2
1-10-72	---	---	---	170	21	58.8	1.10	3.19	---	.002	1.05	2.50	20	---	172	2
2-14-72	---	---	---	106	26	47.3	1.44	.07	---	.009	.00	1.46	19	5.1	122	16
3-13-72	---	---	---	93	16	29.3	.12	.06	.00	.001	.80	1.80	---	3.4	95	2
4-10-72	6.9	2	15	172	---	26.6	.16	.07	.02	.003	.00	1.20	20	5.7	118	16
5-15-72	8.1	---	---	178	---	47.3	2.19	---	---	---	.00	.40	26	2.6	181	3
6-12-72	6.3	---	---	---	---	10.6	2.00	1.60	.12	.004	.58	.36	25	11.5	---	3
7-10-72	7.2	68	16	99	---	50.2	2.71	2.71	.07	.006	.46	.89	24	3.7	137	38
8-14-72	7.3	57	15	138	19	57.4	2.06	1.84	.03	.006	.12	.84	29	4.9	153	15
9-11-72	5.9	15	13	36	16	26.5	.28	.28	.16	.015	.10	1.17	25	---	157	121
10-9-72	4.8	2	31	123	13	23.0	.08	.08	.09	.003	.07	1.17	25	13.0	129	6
11-13-72	6.3	26	18	100	17	42.5	.68	.65	.15	.005	.40	.78	23	15.0	103	3
12-11-72	5.7	11	22	97	19	21.7	.20	.10	.16	.004	.00	.00	22	11.0	98	1
1-15-73	5.6	5	17	118	21	22.6	.08	.08	.36	.008	.00	1.03	11	38.0	175	57
3-12-73	6.6	48	11	148	28	47.4	1.08	1.04	---	---	2.37	1.07	26	40.0	195	47
Station 4																
7-19-71	7.1	21	3	289	6	25.5	2.24	2.10	.03	.005	.40	---	26	6.0	302	13
8-2-71	---	---	---	182	11	---	.10	.07	---	.006	.16	.77	29	3.7	189	7
9-14-71	7.2	11	46	642	25	38.1	.47	.45	---	.003	.77	1.92	---	---	647	5
10-11-71	7.3	8	73	154	19	52.8	.62	.41	---	.000	.47	1.30	24	2.6	154	0
11-8-71	---	---	---	192	21	50.6	1.01	.79	---	.004	---	2.01	28	4.5	215	23

TABLE 1 (CONTINUED)

SURFACE WATER
PHYSICAL AND CHEMICAL DATA
OCTOBER 1970 THROUGH JUNE 1973

Date	pH Lab	Alk as $CaCO_3$ mg/l	Acid as $CaCO_3$ mg/l	TDS mg/l	Cl^- mg/l	Hardness as $CaCO_3$ mg/l	Phosphate Total mg P/l	Phosphate Ortho mg P/l	Nitrogen NO_3 mg N/l	Nitrogen NO_2 mg N/l	Nitrogen NH_3 mg N/l	Nitrogen ORG mg N/l	Temp C	Turb JTU	Solids Total mg/l	Solids Susp mg/l
Station 4 (Cont.)																
12-13-71	—	—	—	141	20	51.0	—	.82	—	.005	.00	1.20	20	1.6	142	1
1-10-72	—	—	—	192	18	86.0	1.19	1.10	—	.001	.40	2.40	20	2.1	195	3
2-14-72	—	—	—	97	21	35.4	1.64	.56	—	.007	.30	1.80	15	5.4	115	18
3-13-72	—	—	—	131	19	35.5	.43	.15	.03	.002	.39	2.70	15	17.0	165	34
4-10-72	6.7	9	14	338	—	42.4	1.43	.97	.05	.003	.30	4.90	18	—	456	118
12-11-72	6.4	34	21	159	20	49.6	2.22	.72	.58	—	.00	.00	22	470.0	319	160
1-15-73	6.2	9	8	144	25	35.3	.06	.04	.26	.004	.05	1.12	11	4.0	156	8
Station 5																
10-28-70	6.9	45	19	—	24	—	—	2.66	.19	.007	.03	1.04	22	—	100	—
11-9-70	7.0	44	15	213	24	—	1.59	1.17	.15	.005	.00	.32	22	10.0	260	47
2-1-71	7.5	64	23	324	28	—	4.77	4.77	.75	.039	.34	2.22	15	100.0	341	17
4-5-71	7.0	34	17	333	12	—	1.68	1.22	.12	.021	.00	3.31	—	80.0	371	38
5-3-71	6.3	50	37	171	28	—	2.13	1.86	.01	.028	.55	2.65	25	5.0	182	9
7-19-71	7.3	57	12	109	5	62.6	1.98	1.45	.03	.031	.15	1.11	28	6.0	124	15
8-2-71	7.4	43	23	150	15	—	.03	.01	—	.083	1.95	.75	30	6.1	166	16
9-14-71	7.6	11	31	129	17	45.1	.59	.31	—	.075	.00	1.57	30	—	138	9
10-11-71	6.3	8	79	88	13	32.9	.72	.08	—	.002	.00	.75	25	70.0	137	49
11-8-711	—	—	—	251	18	48.8	.44	.41	—	.004	.00	2.03	29	6.6	280	29
12-13-71	—	—	—	130	27	47.1	—	.45	—	.226	.00	1.31	23	2.1	134	4
1-10-72	—	—	—	154	18	52.7	2.51	.87	—	.001	.30	1.90	20	1.4	160	6
2-14-72	—	—	—	101	20	35.8	1.28	.56	—	.032	.50	1.60	15	7.2	118	17
3-13-72	—	—	—	103	21	28.4	.46	.38	—	—	.29	1.65	18	2.1	104	1
4-10-72	7.3	28	20	80	—	30.1	. .69	.66	.05	.002	.31	1.40	19	4.9	109	29
5-15-72	7.7	—	—	138	—	39.4	1.73	—	—	—	.00	.40	26	5.1	155	17
6-12-72	6.2	—	—	176	—	10.8	6.14	4.64	.07	.002	.25	1.37	26	12.0	204	88
7-10-72	7.1	41	11	84	—	38.3	1.43	1.43	.07	.005	.17	.79	24	10.5	96	12
8-14-72	7.2	47	11	116	19	51.8	1.29	1.29	.02	.012	.19	.68	29	4.9	133	17
9-11-72	6.3	19	13	142	18	29.3	.44	.42	.16	.016	.13	.85	25	—	149	7

TABLE 1 (CONTINUED)

SURFACE WATER
PHYSICAL AND CHEMICAL DATA
OCTOBER 1970 THROUGH JUNE 1973

Date	pH Lab	Alk as $CaCO_3$ mg/l	Acid as $CaCO_3$ mg/l	TDS mg/l	Cl^- mg/l	Hardness as $CaCO_3$ mg/l	Phosphate Total mg P/l	Phosphate Ortho mg P/l	Nitrogen NO_3 mg N/l	Nitrogen NO_2 mg N/l	Nitrogen NH_3 mg N/l	Nitrogen ORG mg N/l	Temp C	Turb JTU	Solids Total mg/l	Solids Susp mg/l
Station 5 (Cont.)																
10-9-72	6.2	17	14	123	19	31.0	.34	.28	.29	.014	.17	1.08	25	6.5	131	8
11-13-72	6.6	37	13	153	21	48.1	1.25	1.25	.22	.009	.10	.87	24	56.0	178	25
12-11-72	6.4	29	15	128	23	38.3	.94	.62	.74	.007	.00	.00	22	130.0	192	128
1-15-73	6.3	11	8	147	24	30.5	.60	.50	1.33	.023	.42	1.65	11	34.0	165	19
3-12-73	7.0	25	11	133	25	37.2	.74	.72	---	---	.63	1.13	26	24.0	157	20
Station 6																
10-7-70	7.0	51	6	138	28	---	2.65	2.65	---	.004	---	---	27	---	142	4
10-12-70	7.3	77	14	175	25	---	---	---	.21	.010	.81	.23	27	15.0	301	126
10-13-70	7.2	51	19	166	25	---	---	---	.15	.007	.69	.35	27	10.0	307	141
10-28-70	7.0	50	13	174	23	---	---	---	.25	.007	.00	.78	26	24.0	192	18
11-9-70	6.9	42	10	88	21	---	1.59	1.06	.14	.005	.26	.31	21	9.0	106	18
8-2-71	6.9	135	16	---	17	---	---	---	---	.012	.00	.74	30	4.0	---	---
11-8-71	---	---	---	---	19	46.8	.48	.44	---	.005	.00	1.63	29	8.0	---	---
5-16-72	7.5	---	---	137	---	39.5	1.67	---	---	---	.00	.33	24	3.4	138	1
8-14-72	7.2	41	14	115	18	46.7	2.16	.86	.22	.007	.00	.71	29	5.1	137	22
11-13-72	6.7	36	10	182	18	48.6	1.28	1.02	.57	.004	.00	1.05	23	---	222	40
1-15-73	6.5	17	7	148	25	42.9	.60	.54	1.25	.020	.15	1.60	10	28.0	169	21
Station 7																
10-7-70	6.7	72	8	125	22	---	1.59	1.59	---	.046	---	---	27	11.0	127	2
11-9-70	7.0	51	14	274	22	---	1.86	1.86	.33	.039	.00	.94	16	6.0	291	17
2-1-71	7.4	70	9	164	29	---	3.96	3.43	.50	---	.00	1.59	16	13.0	167	3
4-5-71	---	43	7	---	16	---	2.02	2.02	.21	.023	.09	.82	--	3.0	---	---
5-3-71	6.7	67	22	118	47	---	2.36	1.89	.02	.042	.91	10.04	21	10.0	125	7
8-2-71	7.5	30	18	164	37	---	.59	.44	---	.010	1.55	---	30	5.0	175	11
11-8-71	---	---	---	206	16	47.3	.12	.11	---	.007	.00	1.95	29	4.5	228	22
5-15-72	7.5	---	---	146	---	37.7	.14	.12	---	---	.00	.60	25	3.1	151	5
8-14-72	7.2	42	16	116	18	47.6	.92	.86	.22	.008	.05	.57	29	5.7	125	9

TABLE 1 (CONTINUED)

SURFACE WATER
PHYSICAL AND CHEMICAL DATA
OCTOBER 1970 THROUGH JUNE 1973

Date	pH Lab	Alk as $CaCO_3$ mg/l	Acid as $CaCO_3$ mg/l	TDS mg/l	Cl^- mg/l	Hardness as $CaCO_3$ mg/l	Phosphate Total mg P/l	Phosphate Ortho mg P/l	Nitrogen NO_3	Nitrogen NO_2	Nitrogen NH_3 mg N/l	Nitrogen ORG	Temp C	Turb JTU	Solids Total mg/l	Solids Susp mg/l
Station 7 (Cont.)																
11-13-72	6.9	38	9	197	20	50.1	1.80	1.60	.53	.003	.72	1.35	24	—	231	34
1-15-73	6.2	14	9	141	25	41.9	.80	.70	.55	.012	.00	1.32	11	5.5	151	10
Station 8																
11-9-70	7.5	108	13	253	36	—	3.96	4.25	.24	.126	8.45	.75	20	5.0	279	26
2-1-71	7.5	157	75	218	44	—	7.42	5.95	.23	—	12.94	2.22	16	8.0	225	7
5-3-71	7.3	145	24	141	86	—	5.90	5.90	.02	.046	10.16	2.57	24	14.0	151	10
8-2-71	7.4	65	15	—	23	—	7.00	4.73	—	.270	2.46	—	30	—	—	—
11-8-71	—	—	—	178	17	47.1	.48	.38	—	.004	.00	1.60	29	1.3	205	27
5-15-72	7.2	—	—	—	236	56.9	4.64	—	—	—	8.50	.97	25	4.9	238	2
8-14-72	7.5	95	16	196	36	73.8	3.60	3.40	.04	.022	5.52	1.06	29	3.1	208	12
11-13-72	7.0	82	18	193	22	69.9	2.80	2.75	.11	.014	4.58	1.12	24	—	214	21
1-15-73	7.1	53	8	190	20	53.6	2.20	2.00	.92	.070	3.76	1.48	13	50.0	215	25
Station 9																
11-9-70	7.3	104	18	270	33	—	2.39	3.96	.74	.158	4.50	8.80	19	3.0	278	8
2-1-71	7.6	124	60	—	40	—	6.16	4.89	.70	—	8.85	1.77	16	6.0	230	—
5-3-71	7.3	117	19	274	86	—	5.31	5.21	.08	.112	12.94	2.76	25	7.0	280	6
8-2-71	7.4	57	18	200	22	—	5.20	4.96	—	.097	1.99	1.39	30	3.0	210	10
11-8-71	—	—	—	—	26	65.7	2.40	2.30	—	.080	3.58	2.29	29	5.1	—	—
5-15-72	7.6	—	—	227	—	57.0	4.12	3.40	—	—	6.10	.90	25	15.0	235	8
8-14-72	7.5	87	17	194	36	72.9	3.60	3.40	.52	.157	4.34	.66	28	3.9	201	7
11-13-72	7.0	75	13	213	30	66.2	2.60	2.60	.55	.070	4.00	.98	23	—	215	2
1-15-73	7.1	61	10	201	28	60.3	2.60	2.20	1.32	.069	4.66	4.01	13	46.0	222	21

TABLE 2

SURFACE WATER
ADDITIONAL PHYSICAL AND CHEMICAL DATA
OCTOBER 1970 THROUGH JUNE 1973

Milligrams per Liter

Date	pH (field)	Conductivity (micromhos/cm)	SO_4	DO	DO (% Sat)	COD
Pond A						
1-10-72	---	55	---	---	---	---
3-13-72	---	---	2.4	7.7	84	13
4-10-72	6.3	120	18.8	9.5	105	20
5-15-72	---	50	6.6	---	---	---
6-12-72	6.6	74	13.3	7.6	93	35
7-10-72	---	54	23.4	4.0	45	46
8-14-72	---	68	20.4	5.7	74	30
9-11-72	---	60	---	---	---	---
10-9-72	---	55	21.9	---	---	27
11-13-72	---	60	13.4	6.4	75	39
12-11-72	---	59	9.6	5.9	68	---
1-15-73	---	89	7.9	9.7	88	28
1-22-73	---	55	---	---	---	41
2-19-73	---	75	---	8.3	---	33
3-12-73	---	57	---	6.4	---	---
4-9-73	---	60	---	6.1	70	35
5-14-73	---	70	2.44	3.7	44	26
6-11-73	---	70	4.05	4.8	57	42
Pond Effluent						
1-10-72	---	51	---	---	---	---
3-13-72	---	---	2.5	7.7	87	11
5-15-72	---	---	5.4	---	---	25
7-10-72	---	54	21.9	6.0	72	42
8-14-72	---	---	16.2	6.3	83	28
9-11-72	---	50	---	---	---	---
10-9-72	---	50	22.9	---	---	25
11-13-72	---	49	12.8	7.3	85	33
12-11-72	---	60	6.5	7.7	90	---
1-22-73	---	40	---	---	---	4
2-19-73	---	---	---	9.0	---	41
3-12-73	---	57	---	7.5	---	---
4-9-73	---	48	---	7.6	88	35
5-14-73	---	60	2.2	8.0	95	33

TABLE 2 (CONTINUED)

SURFACE WATER
ADDITIONAL PHYSICAL AND CHEMICAL DATA
OCTOBER 1970 THROUGH JUNE 1973

Milligrams per Liter

Date	pH (field)	Conductivity (micromhos/cm)	SO_4	DO	DO (% Sat)	COD
Station 1						
1-10-72	---	70	---	---	---	---
3-13-72	---	---	7.6	7.8	86	42
4-10-72	5.4	100	13.1	9.4	104	37
5-15-72	---	---	5.4	---	---	21
6-12-72	4.7	64	5.6	6.5	78	20
7-10-72	---	74	14.4	2.8	30	43
8-14-72	---	74	6.9	4.6	39	27
9-11-72	---	70	---	---	---	---
10-9-72	---	80	50.1	---	---	105
11-13-72	---	69	6.9	5.5	64	44
12-11-72	---	75	13.1	7.4	85	49
1-15-73	---	142	14.1	7.4	67	70
1-22-73	---	45	---	---	---	---
2-19-73	---	85	---	5.2	---	111
3-12-73	---	65	---	3.8	---	---
4-9-73	---	54	---	5.8	67	50
5-14-73	---	60	2.9	3.9	46	36
6-11-73	---	70	1.9	4.7	56	28
Station 2						
10-7-70	---	---	---	5.8	66	---
10-28-70	---	88	---	4.6	56	---
11-9-70	---	166	---	0.5	48	---
4-5-71	---	---	---	---	---	---
5-3-71	---	732	---	---	---	---
1-10-72	---	209	---	---	---	---
3-13-72	---	---	11.0	7.5	78	56
4-10-72	6.1	135	14.3	9.4	103	44
5-15-72	---	---	7.6	---	---	18
6-12-72	6.0	115	5.3	6.6	83	36
7-10-72	---	78	15.8	3.0	36	36
8-14-72	---	94	12.6	4.7	59	30
9-11-72	---	100	---	---	---	---
10-9-72	---	85	63.1	---	---	118
11-13-72	---	98	13.4	---	---	63
12-11-72	---	105	14.3	---	40	54
1-15-73	---	160	15.2	7.5	67	91
3-12-73	---	78	---	10.5	124	---

TABLE 2 (CONTINUED)

SURFACE WATER
ADDITIONAL PHYSICAL AND CHEMICAL DATA
OCTOBER 1970 THROUGH JUNE 1973

Milligrams per Liter

Date	pH (field)	Conductivity (micromhos/cm)	SO_4	DO	DO (% Sat)	COD
Station 3						
10-7-70	---	405	---	.5	5	---
10-12-70	---	378	---	---	---	---
10-13-70	---	310	---	---	---	---
10-28-70	---	264	---	.7	8	---
11-9-70	---	366	---	1.8	19	---
5-4-71	---	415	---	---	---	---
1-10-72	---	209	---	---	---	---
3-13-72	---	---	14.1	7.5	---	44
4-10-72	---	145	14.0	9.8	107	40
5-15-72	---	---	19.5	---	---	11
6-12-72	6.3	190	7.2	5.0	59	41
7-10-72	---	245	14.1	0.0	---	33
8-14-72	---	230	13.3	9.2	117	37
9-11-72	---	110	---	---	---	---
10-9-72	---	85	69.2	---	---	118
11-13-72	---	147	15.5	5.7	66	60
12-11-72	---	98	14.7	3.5	40	71
1-15-73	---	142	26.3	7.5	66	101
3-12-73	---	200	---	5.6	66	---
Station 4						
1-10-72	---	200	---	---	---	---
3-13-72	---	---	100	6.6	64	117
4-10-72	6.7	195	128	9.7	99	136
12-11-72	---	210	146.5	4.9	54	58
1-15-73	---	214	19.5	7.4	66	83
Station 5						
10-28-70						
11-9-70	---	198	---	4.0	44	---
2-1-71	---	286	---	2.3	22	---
5-3-71	---	259	---	8.5	102	---
8-2-71	---	---	---	0.7	8	---
1-10-72	---	181	---	---	---	---
3-13-72	---	---	12.0	7.3	66	29
4-10-72	6.8	200	21.4	9.5	100	32

TABLE 2 (CONTINUED)

SURFACE WATER
ADDITIONAL PHYSICAL AND CHEMICAL DATA
OCTOBER 1970 THROUGH JUNE 1973

Milligrams per Liter

Date	pH (field)	Conductivity (micromhos/cm)	SO^4	DO	DO (% Sat)	COD
Station 5 (Cont.)						
5-15-72	—	—	17.0	—	—	20
6-12-72	6.2	315	14.4	—	—	49
7-10-72	—	78	13.8	2.3	27	28
8-14-72	—	205	13.0	7.8	100	43
9-11-72	—	130	—	—	—	—
10-9-72	—	125	63.6	—	—	93
11-13-72	—	245	41.7	7.1	83	59
12-11-72	—	180	60.3	5.0	56	61
1-15-73	—	231	47.9	7.3	65	53
3-12-73	—	157	—	15.0	—	—
Station 6						
10-7-70	—	221	—	4.7	58	—
10-12-70	—	231	—	—	—	—
10-13-70	—	210	—	—	—	—
10-28-70	—	186	—	3.2	38	—
11-9-70	—	210	—	4.6	50	—
5-16-72	—	204	15.8	—	—	17
8-14-72	—	180	14.8	3.4	44	42
11-13-72	—	186	132.0	5.0	59	66
1-15-73	—	249	55.0	7.2	62	43
Station 7						
10-7-70	—	214	—	3.9	48	—
11-9-70	—	233	—	2.5	24	—
2-1-70	—	299	—	3.5	35	—
5-3-71	—	250	—	1.3	14	—
8-2-71	—	—	—	4.1	53	—
5-15-72	—	—	14.1	—	—	19
8-14-72	—	175	15.1	3.2	41	39
11-13-72	—	206	133.5	5.0	59	68
1-15-73	—	214	17.8	5.9	53	89

TABLE 2 (CONTINUED)

SURFACE WATER
ADDITIONAL PHYSICAL AND CHEMICAL DATA
OCTOBER 1970 THROUGH JUNE 1973

Milligrams per Liter

Date	pH (field)	Conductivity (micromhos/cm)	SO_4	DO	DO (% Sat.)	COD
Station 8						
11-9-70	---	399	---	2.0	21	---
2-1-71	---	540	---	2.2	22	---
5-3-71	---	531	---	1.3	15	---
8-2-71	---	---	---	1.2	15	---
5-15-72	---	---	22.9	---	---	30
8-14-72	---	450	17.4	1.6	20	42
11-13-72	---	324	125.0	5.0	59	57
1-15-73	---	255	91.2	6.9	64	59
Station 9						
11-9-70	---	355	---	2.4	25	---
2-1-71	---	507	---	2.4	24	---
5-3-71	---	484	---	8.5	100	---
8-2-71	---	---	---	.7	8	---
5-15-72	---	---	22.4	---	---	24
8-14-72	---	450	17.0	1.5	24	40
11-13-72	---	343	24.6	5.0	58	42
1-15-73	---	288	87.1	7.4	69	43

TABLE 3

SURFACE WATER
SULFIDE DATA
FEBRUARY 1972 THROUGH MAY 1973

Milligrams per Liter

Date	Pond A	Pond Effluent	Station 1
2-14-72	0.0	0.0	0.0
3-13-72	0.0	0.0	0.0
4-10-72	0.0	---	0.0
6-12-72	0.2	0.2	0.2
7-10-72	0.8	0.0	0.4
8-14-72	0.0	0.0	0.0
8-28-72	4.8	4.2	4.2
9-10-72	1.1	1.3	1.8
10-9-72	0.0	0.2	0.1
11-13-72	0.1	0.4	0.4
1-15-73	0.2	0.5	0.5
2-17-73	0.2	0.5	0.6
2-19-73	0.2	0.2	0.5
2-27-73	0.2	0.0	0.2
3-12-73	0.5	0.2	2.7
4-9-73	0.2	0.1	0.3
5-14-73	1.2	0.4	0.5

TABLE 4

SURFACE WATER
LABORATORY pH DETERMINATIONS*
JULY 1971 THROUGH MAY 1973

	Pond A		Pond Effluent		Station 1	
Date	A	B	A	B	A	B
7-9-71	5.80	---	5.90	---	5.60	---
8-10-71	6.65	---	7.10	---	6.40	---
9-20-71	6.10	---	6.15	---	5.50	---
10-26-71	6.40	---	5.65	---	3.85	---
11-19-71	6.35	---	6.05	---	4.70	---
12-14-71	6.35	---	---	---	5.80	---
1-11-72	6.23	7.15	6.05	6.60	5.24	6.20
2-14-72	6.20	6.60	6.13	6.59	4.90	5.55
3-13-72	6.55	7.14	5.97	6.93	4.95	5.35
4-10-72	6.94	---	---	---	4.96	---
5-15-72	6.60	6.73	5.20	6.72	5.75	6.72
6-12-72	6.20	6.36	6.07	6.54	5.47	6.85
7-10-72	6.80	4.27	5.10	4.55	7.12	5.65
8-14-72	5.90	6.23	6.38	6.39	6.05	6.54
8-28-72	6.10	6.15	6.10	6.05	5.60	5.10
9-10-72	6.50	7.30	5.85	7.10	5.70	7.00
10-9-72	6.09	6.65	5.85	6.75	4.32	5.65
11-13-72	5.16	5.80	5.70	6.15	5.89	6.25
2-12-73	5.72	6.18	5.43	6.20	4.58	4.45
2-19-73	5.80	6.30	5.80	6.30	5.05	5.70
2-27-73	6.00	6.10	5.89	6.20	4.55	4.83
3-12-73	7.35	6.50	7.00	6.30	5.35	5.40
4-9-73	6.35	6.90	6.05	6.65	5.65	6.40
5-14-73	6.90	6.60	6.32	6.35	5.60	6.50

*A, initial pH; B, pH after one hour of vigorous aeration with CO_2 free air.

TABLE 5

SURFACE WATER
METAL DATA
JULY 1971 THROUGH JUNE 1973

Milligrams per Liter

Date	Ca	Mg	Fe	Al	Zn	K	Na	Cu
Pond A								
7-19-71	.70	.95	.00	—	.01	.20	5.8	.00
9-8-71	.75	.55	.20	—	.01	.25	7.2	.00
9-14-71	1.05	.70	.20	—	.02	.25	4.9	.00
10-11-71	1.20	.70	.06	.0	.01	.25	4.5	.00
11-18-71	2.30	.90	.32	1.0	.01	.30	4.8	.00
12-7-71	1.60	.95	.10	.0	.01	.10	5.4	.00
1-10-72	1.20	.60	.06	.0	.00	.05	6.7	.00
2-14-72	.80	.70	.25	.4	.01	.15	6.1	.00
3-13-72	.80	.85	.20	.6	.01	.20	6.8	.01
4-10-72	.80	.80	.25	2.2	.02	.45	6.0	.02
5-15-72	1.20	.90	.05	.4	.01	.35	7.2	.00
6-12-72	11.20	5.10	3.05	.0	.00	7.10	32.0	.00
7-10-72	1.00	1.05	.25	1.5	.03	.45	5.8	.02
8-14-72	3.00	1.25	.40	.8	.03	.40	6.0	.09
9-11-72	1.30	1.00	.20	.3	.03	.40	5.2	.00
10-9-72	1.40	1.00	.25	1.3	.01	.50	5.3	.00
11-13-72	1.40	1.25	.30	.8	.04	.75	6.4	.00
12-11-72	1.50	1.50	.15	.2	.11	.55	5.8	.02
1-15-73	1.40	1.30	.25	.2	.04	.60	6.3	.04
1-22-73	2.30	1.50	.50	.2	.03	.25	6.9	.02
2-19-73	1.20	1.50	.30	.2	.04	.70	6.5	.04
3-12-73	1.00	1.90	.25	.0	.00	.65	6.4	.00
4-9-73	1.10	1.50	.50	.8	.01	.90	7.3	.00
5-14-73	1.40	2.30	.40	.8	.03	1.30	9.1	.03
6-11-73	.70	1.25	.65	1.4	.01	1.30	9.6	.02
Pond Effluent								
9-14-71	1.20	.70	.20	—	.01	.23	4.5	.00
10-11-71	1.10	.80	.02	.3	.01	.20	4.7	.00
11-8-71	2.70	1.00	.40	2.0	.03	.45	5.2	.00
12-13-71	1.65	.95	.14	1.0	.01	.10	5.8	.00
1-10-72	1.20	1.10	.08	.0	.00	.10	6.7	.00
3-13-72	.80	.85	.25	.8	.02	.20	6.8	.00
5-15-72	1.20	.90	.10	.2	.01	.30	7.5	.00
7-10-72	.80	1.10	.35	1.0	.02	.45	5.8	.03
8-14-72	2.30	1.05	.25	1.3	.02	.40	6.0	.04
9-11-72	1.10	.90	.10	.2	.02	.30	4.4	.00
10-9-72	1.10	.90	.30	.6	.01	.40	5.0	.00

TABLE 5 (CONTINUED)

SURFACE WATER
METAL DATA
JULY 1971 THROUGH JUNE 1973

Milligrams per Liter

Date	Ca	Mg	Fe	Al	Zn	K	Na	Cu
Pond Effluent (Cont.)								
11-13-72	1.20	1.10	.25	.6	.03	.50	5.3	.00
12-11-72	1.60	1.40	.15	.2	.11	.45	5.4	.02
1-22-73	1.30	1.00	.15	.2	.03	.40	5.7	.01
2-19-73	[illegible]	1.25	.30	.2	.03	.50	5.8	.04
3-12-73	1.20	1.20	.25	.0	.03	.60	6.6	.02
4-9-73	.90	1.30	.30	1.0	.03	.60	6.6	.00
5-14-73	2.00	2.10	.50	.4	.03	.30	7.5	.00
Station 1								
7-19-71	2.45	1.10	.08	---	.05	.25	5.9	.02
9-8-71	6.10	1.20	.10	---	.01	.45	5.4	.00
9-14-71	2.60	1.00	.30	---	.01	.15	5.7	.00
10-11-71	3.00	1.05	.16	.3	.01	.23	5.5	.00
11-8-71	9.20	3.20	1.15	2.5	.08	.75	10.6	.00
12-13-71	5.70	2.20	1.30	1.5	.01	.23	8.8	.00
1-10-72	2.70	3.25	.58	.8	.00	.05	7.8	.00
2-14-72	2.60	1.35	.60	.8	.02	.50	7.7	.05
3-13-72	2.00	1.15	.50	1.0	.01	.15	6.4	.00
4-10-72	3.20	1.20	.70	1.0	.04	.30	7.1	.01
5-15-72	1.60	.85	.50	.0	.00	.20	6.9	.00
6-12-72	8.80	2.80	.90	.8	.00	2.25	1.8	.00
7-10-72	2.60	1.35	.45	.4	.03	.35	7.0	.02
8-14-72	3.70	1.45	.65	.5	.03	.35	6.6	.05
9-11-72	2.20	1.15	.55	.7	.01	.20	5.7	.00
10-9-72	3.60	1.40	.55	.5	.01	.25	6.1	.00
11-13-72	1.90	1.35	.50	.7	.03	.35	6.3	.00
12-11-72	1.60	1.50	.65	.6	.10	.25	6.5	.02
1-15-73	3.00	2.00	.55	.6	.04	.25	7.6	.04
1-22-73	1.20	1.25	.20	.5	.03	.45	6.5	.02
2-19-73	1.90	1.40	.40	.6	.05	.20	6.6	.04
3-12-73	1.80	1.40	.65	.4	.01	.20	7.1	.04
4-9-73	2.40	1.70	.40	.4	.01	.35	6.6	.00
5-14-73	1.00	1.80	.30	.7	.03	.95	8.3	.01
6-11-73	2.00	1.00	.40	.8	.02	.10	6.7	.00
Station 2								
9-14-71	4.65	1.50	.70	---	.01	.20	7.4	.00
10-11-71	17.60	3.30	.00	.0	.01	2.45	13.4	.00

TABLE 5 (CONTINUED)

SURFACE WATER
METAL DATA
JULY 1971 THROUGH JUNE 1973

Milligrams per Liter

Date	Ca	Mg	Fe	Al	Zn	K	Na	Cu
Station 2 (Cont.)								
11-8-71	7.40	3.20	1.20	2.5	.01	.80	10.6	.02
12-13-71	5.70	2.20	1.30	.5	.01	.20	8.7	.00
1-10-72	17.80	3.05	.32	.3	,00	3.05	19.0	.00
2-14-72	5.40	1.95	1.20	1.0	1.00	.30	9.6	.00
3-13-72	4.20	1.60	.90	1.0	.01	.35	8.9	.03
4-10-72	5.20	1.65	1.30	1.2	.02	.25	8.5	.02
5-15-72	5.60	1.45	.90	.2	.01	.15	8.5	.00
6-12-72	6.00	1.55	.70	.4	.01	.10	7.9	.00
7-10-72	3.40	1.55	.75	.8	.02	.30	7.0	.04
8-14-72	5.10	1.85	.70	.8	.01	.25	7.9	.02
9-11-72	5.80	1.95	.75	.3	.02	1.15	8.8	.00
10-9-72	5.20	1.50	.95	.0	.01	.25	7.7	.00
11-13-72	5.40	2.10	1.00	.8	.02	.35	8.0	.02
12-11-72	3.70	2.00	.95	.3	.10	.25	7.8	.02
1-15-73	4.90	2.00	.65	.3	.03	.25	8.5	.05
3-12-73	4.30	1.75	1.00	.8	.01	.20	7.1	.02
Station 3								
7-19-71	18.40	3.65	.00	—	.01	5.80	19.2	.00
9-14-71	12.50	2.90	.50	—	.41	3.98	8.9	.00
10-11-71	14.20	2.85	.15	.3	.01	1.60	12.0	.00
11-8-71	11.00	3.20	1.20	3.0	.03	.85	10.6	.00
12-13-71	7.00	2.25	1.25	1.5	.01	.30	8.9	.00
1-10-72	16.40	3.20	.30	.8	.00	2.90	18.8	.00
2-14-72	4.80	2.20	1.10	1.2	.01	.65	10.3	.03
3-13-72	5.00	2.10	.85	1.2	.01	.70	9.6	.02
4-10-72	5.20	1.70	1.20	.8	.02	.45	13.0	.01
5-15-72	12.00	4.20	.00	.0	.00	3.45	33.0	.00
6-12-72	1.20	.90	.30	.6	.00	.15	5.9	.00
7-10-72	12.20	4.60	.45	.0	.01	1.55	22.0	.03
8-14-72	15.40	4.15	.40	.2	.01	4.60	16.0	.06
9-11-72	6.00	2.05	.75	.3	.01	1.20	8.8	.00
10-9-72	5.30	1.65	1.00	.2	.02	.25	7.0	.00
11-13-72	9.60	2.90	.85	.9	.03	2.15	11.7	.00
12-11-72	3.80	2.10	.95	.3	.10	.30	7.9	.00
1-15-73	4.60	2.20	.55	.2	.02	.45	8.4	.06
3-12-73	8.00	3.90	.75	1.8	.00	3.50	15.4	.00

TABLE 5 (CONTINUED)

SURFACE WATER
METAL DATA
JULY 1971 THROUGH JUNE 1973

Milligrams per Liter

Date	Ca	Mg	Fe	Al	Zn	K	Na	Cu
Station 4								
7-19-71	6.05	2.45	.20	---	.01	3.00	16.8	.00
9-14-71	10.40	2.75	.45	---	.01	3.40	6.9	.00
10-11-71	16.00	2.60	.40	.3	.03	2.25	9.1	.02
11-8-71	14.80	3.10	.50	.0	.03	3.40	12.4	.00
12-13-71	14.80	2.90	.42	.3	.01	3.65	14.8	.00
1-10-72	28.50	3.20	.14	.3	.00	2.25	14.6	.00
2-14-72	8.60	3.00	.25	.2	.02	3.85	16.0	.01
3-13-72	7.40	2.65	.30	1.0	.03	2.95	18.0	.02
4-10-72	5.20	2.50	.70	3.2	.03	4.05	16.0	.02
12-11-72	9.40	3.60	.65	1.8	.11	2.65	13.6	.00
1-15-73	8.20	3.20	.30	.2	.02	1.55	20.9	.04
Station 5								
7-19-71	19.20	3.50	.10	---	.03	3.30	13.0	.02
9-14-71	11.90	3.50	.55	---	.01	2.55	9.8	.00
10-11-71	3.70	1.20	.74	3.0	.01	.25	5.5	.00
11-8-71	12.40	3.25	.74	.5	.24	1.93	12.0	.02
12-13-71	12.40	2.90	.80	.5	.00	3.10	13.0	.00
1-10-72	15.80	2.85	.10	.3	.00	2.43	17.0	.00
2-14-72	7.00	3.05	.70	.8	.02	2.85	15.0	.02
3-13-72	5.40	2.90	.40	.4	.00	1.05	19.0	.00
4-10-72	8.00	2.80	.60	.8	.04	2.10	16.0	.04
5-15-72	10.60	3.10	.10	.0	.00	1.80	24.0	.00
6-12-72	1.40	.95	.05	.6	.00	.40	8.5	.00
7-10-72	9.40	3.00	.70	.2	.02	.55	15.0	.04
8-14-72	13.20	3.55	1.10	.4	.02	3.65	14.0	.04
9-11-72	6.40	2.40	.65	.4	.02	1.80	10.1	.00
10-9-72	7.60	2.55	.85	.0	.01	2.85	10.8	.00
11-13-72	9.50	3.65	.55	1.5	.02	3.55	14.7	.00
12-11-72	7.30	3.70	.75	.6	.09	2.30	14.2	.00
1-15-73	5.90	3.30	.55	.2	.04	2.75	13.0	.03
3-12-73	6.80	3.20	.80	1.0	.01	2.40	13.4	.00
Station 6								
11-8-71	12.80	3.05	.48	.3	.04	2.93	12.2	.02
5-16-72	10.80	2.95	.20	.0	.01	1.30	22.0	.00
8-14-72	12.20	3.20	.45	.4	.01	2.95	13.2	.02

TABLE 5 (CONTINUED)

SURFACE WATER
METAL DATA
JULY 1971 THROUGH JUNE 1973

Milligrams per Liter

Date	Ca	Mg	Fe	Al	Zn	K	Na	Cu
Station 6 (Cont.)								
11-13-72	9.50	3.60	.60	1.6	.03	3.55	14.3	.00
1-15-73	7.70	3.40	.40	1.6	.03	3.30	12.3	.02
Station 7								
11-8-71	13.00	3.00	.58	.3	.02	2.60	11.2	.00
5-15-72	10.20	2.85	.30	.0	.01	2.90	21.0	.00
8-14-72	12.60	3.15	.50	.4	.01	3.05	13.4	.03
11-13-72	9.20	3.85	.65	1.8	.04	5.40	14.9	.00
1-15-73	7.70	2.90	.35	1.8	.04	3.35	11.5	.04
Station 8								
11-8-71	13.00	2.90	.72	.3	.01	2.45	10.6	.00
5-15-72	14.20	5.15	.10	.0	.05	6.10	33.0	.00
8-14-72	18.90	5.90	.30	.3	.06	6.80	28.8	.05
11-13-72	16.00	5.75	.30	1.0	.10	6.05	22.6	.00
1-15-73	13.30	4.50	.30	.2	.12	4.45	19.2	.02
Station 9								
11-8-71	19.40	4.00	.30	.0	---	4.20	19.2	.02
5-15-72	14.00	5.30	.05	.0	.04	6.20	35.0	.00
8-14-72	18.50	5.70	.25	.5	.02	6.80	28.4	.02
11-13-72	16.20	5.80	.35	.2	.07	6.30	22.8	.00
1-15-73	15.30	4.90	.35	.2	.14	5.25	21.6	.01

TABLE 6

SURFACE WATER
CARBON ANALYSES
JULY 1971 THROUGH JUNE 1973

Milligrams per Liter*

Date	Total Carbon	Total Inorganic Carbon	Total Organic Carbon	CO_2 Carbon	Carbonate Carbon
Pond A					
7-9-71	11.0	8.0	3.0	5.0	3.0
8-10-71	---	1.0	---	0.0	1.0
9-16-71	16.5	1.8	14.7	0.8	1.0
10-26-71	14.3	3.0	11.3	0.0	5.0
11-19-71	12.7	2.5	10.2	0.0	2.5
12-14-71	17.0	2.0	15.0	0.0	2.0
1-11-72	14.8	0.4	13.4	0.4	1.0
2-14-72	15.0	3.0	12.0	1.0	2.0
3-13-72	14.5	2.3	12.2	0.6	1.7
4-10-72	19.0	2.0	17.0	0.0	2.0
5-15-72	13.3	1.0	12.3	0.0	1.0
6-12-72	16.3	2.0	14.3	0.5	1.5
7-10-72	26.0	2.7	23.3	2.7	0.0
9-10-72	14.0	2.0	12.0	0.0	2.0
10-9-72	14.0	4.0	10.0	0.5	3.5
11-13-72	11.0	2.0	9.0	0.5	1.5
1-15-73	14.0	2.0	12.0	1.0	1.0
2-12-73	16.0	4.5	11.5	0.5	4.0
2-19-73	16.0	5.0	11.0	2.0	3.0
2-27-73	16.0	3.0	13.0	1.0	2.0
3-12-73	17.0	3.0	14.0	1.0	2.0
4-9-73	16.0	2.0	14.0	0.0	2.0
5-14-73	20.0	4.0	16.0	1.0	3.0
Pond Effluent					
7-9-71	11.5	8.5	3.0	5.5	3.0
8-10-71	11.5	1.0	10.5	0.0	1.0
9-20-71	16.0	1.5	14.5	0.5	1.0
10-26-71	20.7	3.1	17.6	2.1	1.0
11-19-71	15.0	1.5	13.5	0.0	1.5
1-11-72	13.3	2.5	10.8	1.1	1.4
2-14-72	14.7	2.5	12.2	1.0	1.5
3-13-72	14.3	2.7	11.6	1.7	1.0
5-15-72	13.0	3.0	10.0	0.0	3.0
6-12-72	17.0	3.0	14.0	2.0	1.0
7-10-72	22.7	3.0	19.7	2.0	1.0
9-10-72	14.0	2.0	12.0	0.0	2.0

*Average for triplicate samples.

TABLE 6 (CONTINUED)

SURFACE WATER
CARBON ANALYSES
JULY 1971 THROUGH JUNE 1973

Milligrams per Liter*

Date	Total Carbon	Total Inorganic Carbon	Total Organic Carbon	CO_2 Carbon	Carbonate Carbon
Pond Effluent (Cont.)					
10-9-72	13.0	3.0	10.0	0.5	2.5
11-13-72	9.0	2.0	7.0	1.0	1.0
1-15-73	12.5	2.5	10.0	1.5	1.0
2-12-73	19.0	4.0	15.0	2.0	2.0
2-19-73	15.0	4.0	11.0	2.0	2.0
2-27-73	16.0	4.0	12.0	2.0	2.0
3-12-73	18.0	4.0	14.0	2.0	2.0
4-9-73	13.0	2.0	11.0	0.0	2.0
5-14-73	19.0	5.0	14.0	2.0	3.0
Station 1					
7-9-71	25.5	22.0	3.5	18.0	4.0
8-10-71	21.0	9.0	12.0	6.5	2.5
9-20-71	20.0	7.0	13.0	4.5	2.5
10-26-71	71.2	7.0	64.2	4.5	2.5
11-19-71	53.7	1.5	52.5	0.0	1.5
12-14-71	19.3	2.0	17.3	0.5	1.5
1-11-72	35.8	11.3	24.5	10.3	1.0
2-14-72	49.0	9.5	39.5	8.0	1.5
3-13-72	40.3	7.2	33.1	6.7	0.5
4-10-72	39.0	7.3	31.7	6.3	1.0
5-15-72	20.0	6.0	14.0	4.5	1.3
6-12-72	21.0	7.3	13.7	5.8	1.5
7-10-72	36.3	11.0	25.3	10.0	1.0
9-10-72	31.0	10.0	21.0	1.0	9.0
10-9-72	55.0	9.0	46.0	8.0	1.0
11-13-72	20.5	3.0	17.5	2.0	1.0
1-15-73	46.0	12.0	34.0	4.0	8.0
2-15-73	50.0	5.0	45.0	4.0	1.0
2-19-73	44.0	7.0	37.0	5.0	2.0
2-27-73	46.0	6.0	40.0	5.0	1.0
3-12-73	39.0	10.0	29.0	9.0	1.0
4-9-73	32.0	5.0	27.0	3.0	2.0
5-14-73	33.0	14.0	19.0	9.0	5.0

*Average for triplicate samples.

TABLE 7

SURFACE WATER
METHYLENE BLUE ACTIVE SUBSTANCES
JULY 1972 THROUGH MAY 1973

Micrograms per Liter

Date	Pond A	Pond Effluent	Station 1
7-25-72	26.8	17.9	17.9
8-14-72	71.4	71.4	125.0
2-12-73	17.0	10.7	11.6
2-19-73	39.0	24.1	28.6
2-27-73	42.0	33.9	26.8
4-9-73	8.0	11.6	9.8
6-14-73	42.9	40.2	45.0

TABLE 8

PHYTOPLANKTON STANDING CROP
DECEMBER 1970 THROUGH JUNE 1973

Organisms Per Milliliter and Milligrams Per Cubic Meter

	Chlorophyll -a		Chlorophylls			Total
Date	Funct.	Non-Funct.	a	b	c	Count
Pond A						
11-9-71	12.03	.00	6.25	.00	.00	100
12-13-71	1.15	.00	.88	1.22	.56	660
1-13-72	1.23	2.65	2.15	9.62	4.64	40
2-14-72	3.21	.00	2.08	1.68	.20	137
3-13-72	4.46	.00	3.50	1.25	.00	3680
4-11-72	1.60	.00	1.38	.00	.00	140
5-15-72	.67	3.07	2.53	.00	.00	570
7-10-72	18.04	7.22	22.73	.00	10.92	1140
8-14-72	1.60	21.97	15.15	.00	.00	3534
9-11-72	5.35	.00	5.15	.00	.16	790
10-9-72	8.02	.00	7.53	1.40	2.67	510
11-13-72	12.03	2.01	13.28	2.78	3.60	1320
12-11-72	12.03	5.75	14.98	6.88	37.40	2790
1-15-73	3.70	6.66	7.56	2.26	9.30	930
2-12-73	16.00	.00	.06	1.76	.00	670
2-19-73	---	---	---	---	---	280
3-13-73	4.72	1.89	6.09	.00	10.00	1535
6-11-73	6.01	1.54	7.41	.00	.00	360
Station 1						
3-3-71	---	---	---	---	---	40
5-5-71	2.47	.00	2.47*	---	---	360
8-2-71	1.00	.00	1.00	---	---	40
11-9-71	20.05	.00	10.60	.20	2.50	680
12-13-71	2.01	1.15	2.48	2.93	8.31	195
1-13-72	1.23	2.65	2.15	9.62	4.64	60
2-14-72	.60	.20	.68	.00	.30	40
3-13-72	2.41	.00	1.28	3.30	1.73	90
4-11-72	2.01	.00	1.95	.00	.24	90
5-15-72	.00	7.35	1.75	.00	2.05	330
7-10-72	6.28	.00	5.33	.00	3.72	580
8-15-72	2.67	1.54	3.61	.10	3.74	1247
9-11-72	13.23	6.98	17.48	3.70	.00	600
10-9-72	.27	.86	.54	.00	.00	330
11-13-72	1.60	4.01	3.84	2.61	4.32	300

*Sum of functional and non-functional chlorophyll-a

TABLE 8 (CONTINUED)

PHYTOPLANKTON STANDING CROP
DECEMBER 1970 THROUGH JUNE 1973

Organisms Per Milliliter and Milligrams Per Cubic Meter

Date	Chlorophyll -a Funct.	Chlorophyll -a Non-Funct.	Chlorophylls a	Chlorophylls b	Chlorophylls c	Total Count
Station 1 (Cont.)						
12-11-72	1.07	2.67	2.65	.38	2.92	180
1-15-73	.00	.00	.00	.00	.00	—
2-12-73	4.01	.00	3.22	.00	.00	330
2-19-73	—	—	—	—	—	340
3-12-73	.89	.48	1.19	.08	.79	90
6-11-73	3.21	5.73	.55	.00	.00	200
Station 2						
12-1-70	.95	.00	.95*	—	—	370
12-29-70	4.76	.00	4.76*	—	—	260
1-25-71	5.68	.00	5.68*	—	—	100
2-26-71	—	—	—	—	—	20
3-3-71	—	—	—	—	—	100
4-12-71	2.01	.00	2.01*	—	—	200
5-5-71	.80	3.69	4.49*	—	—	440
8-2-71	8.02	.00	8.02*	—	—	280
11-9-71	9.36	.00	4.65	.00	.90	320
12-13-71	2.41	.00	1.50	6.33	12.12	70
1-13-72	5.73	.00	5.23	.00	.00	80
2-14-72	2.01	.00	1.01	.30	.00	21
3-13-72	2.01	.00	.76	.89	2.55	180
4-11-72	5.61	.00	2.91	1.68	.00	120
5-15-72	2.14	.12	2.04	.00	27.28	336
7-10-72	10.43	4.17	13.14	.00	6.18	700
8-15-72	.80	5.37	4.10	.00	.00	255
9-11-72	5.73	7.50	10.26	1.08	4.98	255
10-9-72	2.94	.00	1.88	.15	2.63	60
11-13-72	3.51	.70	3.89	3.12	5.91	490
12-11-72	3.21	.00	2.58	1.93	.00	50
1-15-73	2.41	.00	2.33	.30	1.93	80
3-12-73	2.40	.00	.57	.00	.00	110
Station 3						
12-1-70	—	—	—	—	—	490
12-29-70	—	—	—	—	—	700
1-25-71	2.21	.00	2.21*	—	—	270

*Sum of functional and non-functional chlorophyll-a

TABLE 8 (CONTINUED)

PHYTOPLANKTON STANDING CROP
DECEMBER 1970 THROUGH JUNE 1973

Organisms Per Milliliter and Milligrams Per Cubic Meter

Date	Chlorophyll -a Funct.	Chlorophyll -a Non-Funct.	Chlorophylls a	Chlorophylls b	Chlorophylls c	Total Count
Station 3 (Cont.)						
2-26-71	145.68	1.13	146.81*	---	---	20910
4-12-71	32.88	8.66	41.54*	---	---	2940
5-5-71	10.83	11.35	22.18*	---	---	1120
8-2-71	210.50	23.86	234.36*	---	---	24150
11-9-71	14.03	.00	6.68	.00	19.50	140
12-13-71	4.01	.00	2.31	.00	7.95	90
1-13-72	3.01	1.55	3.62	4.50	9.04	230
2-14-72	.80	1.60	1.77	1.19	.82	52
3-13-72	7.22	.00	3.48	.00	.27	160
4-11-72	4.81	.00	2.99	1.19	.00	100
5-15-72	2.56	.00	2.45	.72	2.57	130
7-10-72	18.66	9.75	25.00	.00	3.08	2010
8-15-72	16.57	12.99	25.35	.00	.00	---
9-11-72	4.01	6.38	7.82	1.42	2.47	285
10-9-72	1.60	.00	1.58	.16	1.06	165
11-13-72	1.60	27.30	18.49	.00	.00	450
12-11-72	.57	3.84	2.70	1.93	7.45	50
Station 4						
1-25-71	1.78	.00	1.78*	---	---	150
2-26-71	2.19	1.30	3.49*	---	---	350
4-12-71	2.14	.00	2.14*	---	---	280
8-2-71	1.60	1.20	2.80*	---	---	40
11-9-71	2.01	.00	1.88	1.80	3.32	240
12-13-71	1.00	.00	.64	.26	2.41	130
1-13-72	.40	1.70	1.43	.00	5.93	100
2-14-72	1.00	.00	.57	.39	.00	8
3-13-72	3.21	1.29	3.96	1.38	5.28	470
4-11-72	36.09	.00	33.00	.00	.00	290
12-11-72	9.16	3.67	11.02	4.17	32.59	270
Station 5						
1-25-71	2.01	.33	2.34*	---	---	440
2-26-71	23.26	1.29	24.55*	---	---	240
5-5-71	12.03	10.89	22.92*	---	---	690
8-2-71	20.48	18.12	38.60*	---	---	740
11-9-71	6.01	.00	2.60	.00	.00	140

*Sum of functional and non-functional chlorophyll-a

TABLE 8 (CONTINUED)

PHYTOPLANKTON STANDING CROP
DECEMBER 1970 THROUGH JUNE 1973

Organisms Per Milliliter and Milligrams Per Cubic Meter

Date	Chlorophyll -a Funct.	Chlorophyll -a Non-Funct.	Chlorophylls a	Chlorophylls b	Chlorophylls c	Total Count
Station 5 (Cont.)						
12-13-71	1.34	1.84	2.32	2.17	1.16	125
1-13-72	1.87	2.43	3.34	.33	2.48	130
2-14-72	2.01	.00	1.55	3.77	4.98	100
3-13-72	1.20	1.04	1.68	1.97	5.63	600
4-11-72	20.05	13.63	30.00	.00	.00	1460
5-15-72	.31	1.85	1.33	1.34	.89	132
7-10-72	4.46	9.27	10.13	.00	2.38	1140
8-15-72	17.92	7.17	22.40	3.20	4.00	---
9-11-72	2.81	5.33	6.14	.00	2.32	360
10-9-72	2.41	.00	2.41	.73	4.32	180
11-13-72	3.61	25.86	19.17	1.32	.00	350
12-11-72	4.81	7.54	9.11	2.66	18.95	450
Station 6						
1-25-71	1.25	.00	1.25*	---	---	110
2-26-71	.00	1.73	1.73*	---	---	40
4-2-71	.23	2.58	2.81*	---	---	220
5-5-71	1.00	.96	1.96*	---	---	160
8-2-71	5.61	.00	5.61*	---	---	160
11-9-71	.00	.00	.00	.00	.00	40
5-15-72	.00	1.40	.72	1.39	3.72	40
8-15-72	3.21	2.25	4.57	1.97	.90	---
11-13-72	2.41	9.94	8.39	.01	5.47	90
Station 7						
2-26-71	.19	1.68	1.87*	---	---	250
4-1-71	.00	1.44	1.44*	---	---	60
5-5-71	.00	1.38	1.38*	---	---	90
8-2-71	.40	1.56	1.96*	---	---	120
8-2-71	1.00	.00	1.00	---	---	---
11-9-71	.00	.00	.00	.00	.00	20
5-15-72	.40	.44	.66	.04	1.42	10
8-15-72	2.41	3.07	4.28	.40	.30	---
11-13-72	1.41	6.01	6.04	.48	.94	100

*Sum of functional and non-functional chlorophyll-a

TABLE 8 (CONTINUED)

PHYTOPLANKTON STANDING CROP
DECEMBER 1970 THROUGH JUNE 1973

Organisms Per Milliliter and Milligrams Per Cubic Meter

Date	Chlorophyll -a Funct.	Chlorophyll -a Non-Funct.	Chlorophylls a	Chlorophylls b	Chlorophylls c	Total Count
Station 8						
3-4-71	18.95	11.15	30.11*	---	---	1290
4-1-71	11.36	10.39	21.75*	---	---	500
5-5-71	45.71	35.97	81.67*	---	---	1540
8-2-71	26.73	.00	26.73*	---	---	980
11-9-71	.00	.00	.00	.00	.00	10
5-15-72	43.30	34.16	62.70	27.12	34.26	1575
8-15-72	10.21	62.94	47.47	11.13	9.12	---
11-13-72	6.95	32.53	26.10	7.94	3.50	60
Station 9						
12-1-70	---	---	---	---	---	1860
12-29-70	---	---	---	---	---	640
3-4-71	2.41	.40	2.81*	---	---	280
4-2-71	3.32	3.90	7.22*	---	---	660
5-5-71	36.09	39.98	76.06*	---	---	1600
8-2-71	3.61	16.04	19.65*	---	---	1470
11-9-71	2.41	.96	3.08	.00	.00	120
5-15-72	14.84	12.39	21.87	10.04	6.80	990
8-15-72	13.10	15.53	22.41	4.36	3.48	---
11-13-72	2.94	35.23	23.94	2.51	11.61	120

*Sum of functional and non-functional chlorophyll-a

TABLE 9

ALGAE FOUND IN PLANKTON SAMPLES NOVEMBER 1970 THROUGH JUNE 1973

Organism Group or Genus	Percent Occurrence By Station PA	1	2	3	4	5	6	7	8	9
CYANOPHYTA										
Chroococcales										
Agmenellum	5	21	5	16	0	19	13	13	14	34
Anacystis	17	5	0	10	0	0	0	0	28	12
Homogonales										
Anabaena	33	15	23	16	0	0	13	0	14	0
Arthrospira	5	5	0	5	0	0	0	0	0	0
Lyngbya	5	5	5	10	18	5	38	0	0	34
Oscillatoria	0	11	0	21	9	13	0	25	28	12
Porphyrosiphon	0	0	5	0	0	0	0	0	0	0
Schizothrix	39	21	5	0	0	6	0	0	0	12
Unidentified	0	0	5	0	0	0	0	0	0	0
CHLOROPHYTA										
Volvocales										
Carteria	11	21	18	26	18	25	0	13	14	0
Chlamydomonas	33	26	14	16	9	25	0	0	14	23
Eudorina	5	11	0	0	0	6	0	0	0	0
Pandorina	0	0	5	5	0	19	0	0	0	22
Spondylomorum	0	0	0	0	0	0	0	0	0	12
Tetrasporales										
Sphaerocystis	5	5	0	5	0	0	0	0	0	12
Ulotrichales										
Binuclearia	0	11	0	10	0	0	0	0	14	0
Geminella	0	5	5	0	0	0	0	0	0	0
Chlorococcales										
Actinastrum	0	0	0	16	0	0	0	0	14	12
Ankistrodesmus	17	15	14	21	9	13	13	13	71	67
Chlorella	27	5	9	16	9	19	25	25	14	44
Closteriopsis	11	11	9	5	0	0	0	25	14	12
Coelastrum	11	5	5	21	18	25	13	0	43	66
Crucigenia	5	5	0	16	0	0	0	0	14	33
Dictyosphaerium	0	0	5	0	0	0	0	0	14	12
Kirchneriella	0	0	5	0	0	0	0	0	14	22
Micratinium	0	0	0	5	0	6	0	0	14	33
Nephrocytium	5	0	0	5	0	0	0	0	0	0
Oocystis	0	0	0	5	0	0	0	0	14	0
Pediastrum	0	0	0	0	0	0	0	0	14	12
Scenedesmus	27	32	18	79	9	69	63	50	100	77
Schroederia	0	0	0	5	0	0	0	0	14	12
Selenastrum	5	0	0	5	9	0	0	0	14	22
Tetraedron	0	5	0	5	0	0	0	0	0	12

TABLE 9 (CONTINUED)

ALGAE FOUND IN PLANKTON SAMPLES NOVEMBER 1970 THROUGH JUNE 1973

Organism Group or Genus	Percent Occurrence By Station									
	PA	1	2	3	4	5	6	7	8	9
Zygnematales										
Bambusina	0	11	0	5	0	0	0	0	0	0
Closterium	0	5	9	16	27	19	0	13	57	12
Cosmarium	16	21	9	5	0	19	0	13	14	45
Euastrum	0	0	18	0	0	0	0	0	0	0
Hyalotheca	0	5	0	0	0	0	0	0	0	0
Micrasterias	16	16	0	5	0	0	0	0	0	0
Mougeotia	11	16	9	0	0	6	0	0	0	0
Penium	5	21	0	5	9	0	0	0	0	0
Spirogyra	0	11	5	0	0	13	0	0	0	0
Spondylosium	0	0	0	5	0	0	0	0	0	0
Staurastrum	5	0	5	5	0	0	0	0	0	0
Tetmemorus	0	0	0	5	0	0	0	0	0	0
PYRRHOPHYTA										
Dinokonatae										
Glenodinium	5	11	0	0	0	0	0	0	0	0
Peridinium	50	42	18	11	0	0	0	0	0	0
CHRYSOPHYTA										
Heterococcales										
Tetragoniella	0	0	0	5	9	0	0	25	14	0
Chrysomonales										
Dinobryon	72	58	36	21	9	6	13	0	0	12
Mallamonas	0	0	0	0	9	0	0	0	0	0
Synura	0	5	5	0	0	0	0	0	0	0
Centrales	22	5	18	84	91	69	38	25	57	55
Pennales	77	84	95	84	91	100	63	75	86	88
EUGLENOPHYTA										
Euglenales										
Euglena	5	53	27	63	45	56	25	75	72	88
Lepocinclis	0	5	0	0	0	6	0	0	14	12
Phacus	5	11	9	32	18	38	25	13	29	33
Trachelomonas	5	5	5	11	9	0	0	0	14	12
NUMBER OF SAMPLES	18	19	22	19	11	16	8	8	7	9

TABLE 10

PERIPHYTON STANDING CROP
NOVEMBER 1970 THROUGH JUNE 1973

Milligrams per Square Millimeter
Cells per Square Millimeter

Inclusive Dates	Chlorophyll-a Funct.	Chlorophyll-a Non-Funct.	Chlorophylls a	Chlorophylls b	Chlorophylls c	Total Count
Pond A						
12-15-71 - 1-26-71	—	—	.54	.46	.54	121
4-18-72 - 5-31-72	5.12	5.15	7.85	5.08	15.01	634
7-10-72 - 8-7-72	1.37	1.02	1.97	.37	1.89	1367
8-7-72 - 9-5-72	3.23	5.23	6.29	2.05	3.95	976
9-5-72 - 10-2-72	1.36	.00	1.38	.31	.06	594
10-2-72 - 10-30-72	6.14	1.98	7.45	.39	.00	—
10-30-72 - 11-27-72	10.23	2.66	12.01	.62	1.72	—
11-27-72 - 12-26-72	1.59	1.43	2.41	.59	4.33	254
1-2-73 - 1-29-73	.68	.00	.42	.00	1.02	20
1-29-73 - 2-26-73	.34	.00	.25	.38	1.46	12
2-26-73 - 3-26-73	.00	1.67	.95	.57	1.46	72
3-26-73 - 4-23-73	.51	.00	—	—	—	16
4-23-73 - 5-21-73	.68	.03	.66	.50	2.38	15
5-21-73 - 6-18-73	2.56	7.59	7.05	1.29	5.02	124
Station 1						
2-22-71 - 3-23-71	.00	.00	.00*	—	—	20
6-16-71 - 7-28-71	.68	6.00	6.68*	—	—	67
9-17-71 - 10-28-71	17.73	2.32	19.15	6.02	.00	244
12-15-71 - 1-26-72	8.18	6.61	11.95	5.51	2.60	—
4-18-72 - 5-31-72	1.02	.05	1.05	.24	.69	399
7-10-72 - 8-7-72	1.37	.55	1.67	.51	1.65	997
8-7-72 - 9-5-72	14.49	6.39	18.55	1.31	3.34	265
9-5-72 - 10-2-72	1.88	10.77	8.28	1.35	2.44	497
10-2-72 - 10-30-72	—	—	9.65	.72	.00	684
10-30-72 - 11-27-72	6.14	6.87	10.35	.69	1.87	567
11-27-72 - 12-26-72	3.75	2.57	5.27	1.15	3.78	232
1-2-73 - 1-29-73	4.09	.00	2.82	.72	.66	160

*Sum of functional and non-functional chlorophyll-a

TABLE 10 (CONTINUED)

PERIPHYTON STANDING CROP
NOVEMBER 1970 THROUGH JUNE 1973

Milligrams per Square Millimeter
Cells per Square Millimeter

Inclusive Dates			Chlorophyll-a Funct.	Chlorophyll-a Non-Funct.	Chlorophylls a	Chlorophylls b	Chlorophylls c	Total Count
Station 1 (Cont.)								
1-29-73	-	2-26-73	1.19	.59	1.51	.58	3.01	46
2-26-73	-	3-26-73	—	—	1.35	.18	.00	177
4-23-73	-	5-21-73	—	—	—	—	—	335
5-21-73	-	6-18-73	5.28	4.86	8.04	3.30	7.87	291
Station 2								
11-2-70	-	12-1-70	—	—	—	—	—	133
12-1-70	-	12-29-70	2.39	2.80	5.19*	—	—	40
2-22-71	-	3-23-71	10.36	1.09	11.45	—	—	—
3-23-71	-	5-5-71	1.23	3.07	4.30*	—	—	45
9-17-71	-	10-28-71	30.00	6.75	33.98	11.13	.54	472
12-15-71	-	1-26-72	5.80	.31	2.39	1.04	.00	223
Station 3								
12-1-70	-	12-29-70	72.62	99.62	172.24*	—	—	2214
2-15-71	-	2-12-71	36.34	11.46	48.00*	—	—	2702
2-22-71	-	3-23-71	5.93	6.96	12.89*	—	—	707
9-17-71	-	10-28-71	.00	.00	.00	.00	.00	41
12-15-71	-	1-26-72	6.14	4.36	8.70	2.96	.00	300
Station 4								
11-2-70	-	12-1-70	—	—	—	—	—	66
12-1-70	-	12-29-70	1.98	.00	1.98*	—	—	59
1-15-71	-	2-12-71	2.59	3.41	6.00*	—	—	584
2-22-71	-	3-23-71	8.18	1.02	9.20*	—	—	645
9-17-71	-	10-28-71	2.05	.00	1.11	.50	.10	17
12-15-71	-	1-26-72	.00	9.89	5.31	3.92	2.11	418

*Sum of functional and non-functional chlorophyll-a

TABLE 10 (CONTINUED)

PERIPHYTON STANDING CROP
NOVEMBER 1970 THROUGH JUNE 1973

Milligrams per Square Millimeter
Cells per Square Millimeter

Inclusive Dates			Chlorophyll-a Funct.	Chlorophyll-a Non-Funct.	Chlorophylls a	Chlorophylls b	Chlorophylls c	Total Count
Station 5								
11-2-70	-	12-1-70	---	---	---	---	---	3106
12-1-70	-	12-29-70	18.21	.00	18.21*	---	---	---
1-15-71	-	2-12-71	2.05	2.86	4.91*	---	---	131
2-22-71	-	3-23-71	18.41	8.12	16.53*	---	---	619
3-23-71	-	5-5-71	13.64	.00	13.64*	---	---	463
12-15-71	-	1-26-72	7.16	5.49	10.26	5.02	—	184
Station 6								
12-1-70	-	12-29-70	.00	8.93	8.93*	---	---	305
2-22-71	-	3-23-71	7.71	.00	7.71*	---	---	246
9-17-71	-	10-28-71	5.46	.00	3.81	.00	.00	98
12-15-71	-	1-26-72	55.23	.14	27.70	8.10	4.26	714
4-18-72	-	5-31-72	6.14	.00	6.09	1.85	2.95	91
Station 7								
12-1-70	-	12-29-70	11.80	.00	11.80	---	---	116
1-15-71	-	2-12-71	36.21	7.77	43.98*	---	---	883
2-22-71	-	3-23-71	7.02	.00	7.02*	---	---	191
3-23-71	-	5-5-71	6.07	2.18	8.25*	---	---	362
6-16-71	-	7-28-71	3.42	1.36	4.78*	---	---	18
9-17-71	-	10-28-71	1.16	.00	.97	1.35	.41	16
4-18-72	-	5-31-72	2.73	.00	2.10	.38	4.07	20
Station 8								
11-2-70	-	12-1-70	---	---	---	---	---	351
12-1-70	-	12-29-70	11.73	3.82	15.55*	---	---	141
1-15-71	-	2-14-71	88.65	40.23	128.88*	---	---	3510
2-22-71	-	3-23-71	41.97	20.87	62.84*	---	---	2697
3-23-71	-	5-5-71	28.16	58.98	87.14*	---	---	781

*Sum of functional and non-functional chlorophyll-a

TABLE 10 (CONTINUED)

PERIPHYTON STANDING CROP
NOVEMBER 1970 THROUGH JUNE 1973

Milligrams per Square Millimeter
Cells per Square Millimeter

Inclusive Dates			Chlorophyll-a Funct.	Chlorophyll-a Non-Funct.	Chlorophylls a	Chlorophylls b	Chlorophylls c	Total Counts
Station 8 (Cont.)								
6-16-71	-	7-28-71	.68	2.66	3.34*	---	---	35
9-17-71	-	10-28-71	1.36	.00	.92	.00	.00	4
12-15-71	-	1-26-72	64.10	17.05	73.95	24.21	23.93	2186
Station 9								
11-2-70	-	12-1-70	---	---	---	---	---	135
12-1-70	-	12-29-70	4.64	3.48	8.12*	---	---	192
2-22-71	-	3-23-71	10.91	.47	11.38*	---	---	650
3-23-71	-	5-5-71	12.62	14.12	26.74*	---	---	300
6-16-71	-	7-28-71	12.95	.89	13.83*	---	---	185
9-17-71	-	10-28-71	25.23	.00	22.50	2.23	1.71	557
4-18-72	-	5-31-72	26.42	4.48	28.97	9.44	12.36	271

*Sum of Functional and Non-Functional Chlorophyll-a

TABLE 11

ALGAE FOUND IN PERIPHYTON SAMPLES NOVEMBER 1970 THROUGH JUNE 1973

Organism Group or Genus	Percent Occurrence by Station PA	1	2	3	4	5	6	7	8	9
CYANOPHYTA										
Chroococcales										
Agmenellum	25	63	17	0	17	20	0	0	0	14
Anacystis	42	19	17	20	17	20	0	0	25	14
Coelosphaerium	0	0	17	0	0	0	0	0	0	0
Homogonales										
Anabaena	42	75	17	20	33	0	0	0	13	0
Lyngbya	0	0	0	0	17	0	0	0	0	29
Oscillatoria	17	13	17	0	0	0	20	14	25	0
Phormidium	0	0	17	0	0	0	0	0	0	0
Spirulina	0	0	0	0	0	0	20	0	0	14
Schizothrix	50	13	0	0	0	0	0	0	0	0
Unidentified	0	0	17	0	17	0	0	14	13	14
CHLOROPHYTA										
Volvocales										
Chlamydomonas	17	0	0	0	0	0	0	0	0	0
Pandorina	8	0	0	0	0	20	0	0	0	0
Ulotrichales										
Binuclearia	0	0	0	0	0	0	0	0	0	0
Geminella	0	0	0	0	0	0	40	0	13	0
Stichococcus	8	0	0	0	17	0	0	0	0	0
Stigeoclonium	0	0	17	60	67	80	0	14	25	43
Cladophorales										
Rhizoclonium	0	0	0	0	0	0	0	0	0	14
Oedogoniales										
Bulbochaete	0	19	0	0	0	0	0	0	0	0
Oedogonium	0	0	0	0	0	20	0	0	0	0
Chlorococcales										
Actinastrum	0	0	0	0	17	0	0	0	0	0
Ankistrodesmus	8	0	0	0	17	0	0	0	25	14
Chlorella	33	19	17	80	50	20	0	0	38	29
Closteriopsis	17	19	0	0	0	0	0	0	0	0
Coelastrum	8	0	0	40	0	20	0	0	0	14
Crucigenia	17	6	0	0	0	0	0	0	0	0
Dictyosphaerium	0	6	0	0	0	0	0	0	0	0
Elakatothrix	8	0	0	0	0	0	0	0	0	0
Nephrocytium	0	0	0	20	0	0	0	0	13	0
Oocystis	0	6	17	20	0	0	0	0	13	0
Pediastrum	8	0	0	0	17	0	0	0	0	0
Pleurotaenium	0	6	0	0	0	0	0	0	0	0
Scenedesmus	8	31	17	100	33	80	0	43	63	57
Schroederia	8	0	0	0	0	0	0	0	0	14
Tetraedron	25	20	0	0	0	0	0	0	13	14

TABLE 11 (CONTINUED)

ALGAE FOUND IN PERIPHYTON SAMPLES NOVEMBER 1970 THROUGH JUNE 1973

Organism Group or Genus	Percent Occurrence by Station									
	PA	1	2	3	4	5	6	7	8	9
Zygnematales										
Bambusina	0	31	0	0	0	0	0	0	0	0
Closterium	42	44	67	20	67	20	0	29	63	43
Cosmarium	83	56	83	80	17	0	0	14	13	0
Euastrum	75	56	83	20	17	0	0	0	0	0
Micrasterias	8	13	33	0	17	0	0	0	0	0
Mougeotia	33	69	17	20	0	0	0	0	0	0
Penium	50	75	17	0	0	20	0	0	0	0
Spirogyra	8	31	17	0	0	0	0	0	0	0
Staurastrum	17	0	0	0	0	0	0	0	0	0
Tetmemorus	17	13	0	0	0	0	0	0	0	0
Triploceras	8	6	0	0	0	0	0	0	0	0
PYRRHOPHYTA										
D[illegible]konatae										
Peridinium	83	44	0	0	0	0	0	0	0	0
CHRYSOPHYTA										
Heterococcales										
Centritractus	0	6	17	0	0	0	0	0	0	0
Chrysomonadales										
Dinobryon	58	38	50	0	33	0	0	0	0	0
Centrales	25	25	17	100	67	80	40	86	88	57
Pennales	100	100	100	100	100	100	100	100	100	100
EUGLENOPHYTA										
Euglenales										
Euglena	42	25	50	40	50	20	0	43	38	14
Phacus	8	0	0	60	17	20	0	0	13	0
Trachelomonas	0	6	0	0	0	0	0	0	0	0
NUMBER OF SAMPLES	12	16	6	5	6	5	5	7	8	7

TABLE 12

MACROINVERTEBRATE SUMMARY
FROM QUALITATIVE SAMPLING
NOVEMBER 1970 THROUGH NOVEMBER 1971

Date	Biotic Index (BI)	Total Species (S)	Species per Sample Class I	Species per Sample Class II	Species per Sample Class III	Percentage Class I	Percentage Class II	Percentage Class III
STATION 1								
1-26-71	0	2	0	0	2	0	0	50
5-4-71	2	8	0	2	2	0	25	25
11-15-71	9	20	3	3	5	15	15	25
STATION 2								
12-18-70	2	4	0	2	0	0	50	0
1-26-71	0	6	0	0	1	0	0	17
5-4-71	4	13	1	2	4	8	15	31
11-15-71	4	15	1	2	4	7	13	27
STATION 3								
11-24-70	1	12	0	1	5	0	8	42
12-28-70	2	14	0	2	3	0	14	21
1-25-71	2	16	1	0	3	6	0	19
2-26-71	0	11	0	0	5	0	0	45
4-12-71	0	11	0	0	2	0	0	18
5-4-71	0	14	0	0	7	0	0	50
11-15-71	1	12	0	1	3	0	8	25
STATION 4								
11-24-70	1	21	0	1	6	0	5	29
12-28-70	2	18	0	2	6	0	11	33
1-25-71	4	16	1	2	1	6	13	6
2-26-71	5	24	2	1	7	8	4	29
4-12-71	0	11	0	0	4	0	0	36
11-19-71	9	20	4	1	5	20	5	25
STATION 5								
11-24-70	4	19	0	4	7	0	21	39
12-28-70	3	17	0	3	6	0	18	35
1-26-71	4	27	1	2	6	4	7	22
2-25-71	4	25	1	2	8	4	8	32
4-4-71	5	24	1	3	6	4	13	25
11-17-71	10	33	3	4	10	9	12	30
STATION 6								
11-24-70	19	31	7	5	5	23	16	16
12-28-70	22	31	10	2	3	32	6	10
1-28-71	19	30	8	3	6	27	10	20
2-25-71	12	22	5	2	6	23	9	27
4-2-71	10	23	4	2	7	17	9	30
11-16-71	22	29	8	6	5	36	27	23

TABLE 12 (CONTINUED)

MACROINVERTEBRATE SUMMARY FROM QUALITATIVE SAMPLING NOVEMBER 1970 THROUGH NOVEMBER 1971

Date	Biotic Index (BI)	Total Species (S)	Species per Sample Class I	Species per Sample Class II	Species per Sample Class III	Percentage Class I	Percentage Class II	Percentage Class III
STATION 7								
12-28-70	23	31	10	3	4	32	10	13
2-27-71	10	23	4	2	6	17	9	26
4-1-71	22	35	9	4	6	26	11	17
6-21-71	20	29	7	6	5	24	21	17
11-16-71	18	25	7	4	4	28	16	16
STATION 8								
11-24-70	5	16	1	3	4	6	19	25
12-28-70	4	25	1	2	9	4	8	36
3-1-71	4	17	1	2	6	6	12	35
4-1-71	3	17	1	1	4	6	6	24
6-21-71	2	7	0	2	3	0	29	43
11-23-71	9	30	4	1	8	13	3	27
STATION 9								
11-24-70	15	28	5	5	7	18	28	25
12-28-70	22	31	9	4	6	29	13	19
3-1-71	15	22	6	3	4	27	14	18
4-2-71	14	26	5	4	4	19	15	15
11-23-71	10	18	4	2	5	22	11	27

*Class I, Pollution Intolerant; Class II, Moderately Tolerant; Class III, Pollution Tolerant.

TABLE 13

MACROINVERTEBRATES COLLECTED IN QUALITATIVE SAMPLES NOVEMBER 1970 THROUGH FEBRUARY 1972

Organism Group or Genus	Percent Occurrence By Station								
	1	2	3	4	5	6	7	8	9
Planariidae	0	0	0	17	33	17	0	20	20
Oligochaeta	33	25	100	83	83	67	100	80	80
Hirudinea	0	25	86	50	100	0	50	80	60
Asellus sp.	0	0	0	0	0	0	25	100	100
Hyalella azteca	0	0	0	33	100	0	0	100	100
Progambarus sp.	0	0	14	33	17	0	25	40	60
Palaemonetes paludosus	0	0	0	0	83	33	25	20	20
Baetis spiethi	0	0	0	33	17	100	50	0	0
Caenis diminutus	33	25	71	33	100	50	100	100	80
Callibaetis floridana	0	0	29	17	67	0	0	0	0
Ephemerella sp.	0	0	0	0	0	67	50	0	0
Stenonema spp	0	0	0	33	17	83	100	20	100
Anax spp	0	0	28	0	17	0	0	20	0
Aphylla williamsoni	0	0	43	17	50	0	0	0	0
Boyeria vinosus	0	0	0	0	0	0	25	0	0
Dromogomphus spinosus	0	0	0	0	0	17	25	0	0
Erythemis simplicicollis	33	0	0	0	0	0	0	0	0
Gomphus sp.	0	25	14	17	0	100	100	0	40
Libellula spp	0	25	0	67	17	0	0	0	0
Macromia spp	0	0	14	17	0	100	100	0	80
Miathyia marcella	0	0	0	0	17	0	0	0	0
Nasiaeschna pentacantha	0	0	0	0	33	17	0	0	0
Neocordulia sp.	0	0	0	0	0	33	25	0	0
Pachydiplax longipennis	0	25	86	0	50	0	0	60	0
Perithemis seminole	0	50	43	0	17	17	25	40	20
Tetragoneuria sp.	0	0	0	0	17	0	0	0	0
Argia spp	0	0	0	0	50	100	100	0	20
Calopteryx maculata	0	0	0	0	0	50	25	0	0
Enallagma spp	33	25	57	0	67	50	100	60	80
Heterina titia	0	0	0	0	0	33	25	0	0
Ischnura spp	0	25	57	33	83	0	0	100	40
Unid. Zygoptera	0	0	0	0	33	17	0	0	0

TABLE 13 (CONTINUED)

MACROINVERTEBRATES COLLECTED IN QUALITATIVE SAMPLES NOVEMBER 1970 THROUGH FEBRUARY 1972

Organism Group or Genus	Percent Occurrence By Station								
	1	2	3	4	5	6	7	8	9
Corixidae	0	0	14	0	17	0	0	0	0
Pelocoris sp.	0	0	14	0	0	0	0	0	0
Ranatra sp.	0	0	0	0	0	0	0	0	20
Corydalus cornutus	0	0	0	0	0	50	75	0	40
Sialis sp.	33	0	0	17	0	0	0	0	0
Elmidae	0	0	14	100	67	83	100	0	100
Dytiscidae	0	0	43	0	0	0	0	0	0
Gyrinidae	0	0	14	0	0	50	0	0	0
Haliplidae	0	0	0	0	17	0	0	0	0
Hydrophilidae	0	0	57	0	17	0	0	20	0
Lepidoptera	33	0	0	33	0	0	0	0	0
Cheumatospyche sp.	0	0	0	0	33	83	75	20	100
Leptocella sp.	0	0	0	0	0	0	25	0	0
Nyctiophylax sp.	0	0	0	0	0	17	0	0	0
Oecetis sp.	67	50	0	17	17	50	25	0	40
Oxyethira sp.	33	0	0	0	0	0	0	0	0
Polycentropus sp.	33	0	0	0	0	33	0	0	0
Ceratopogonidae	33	25	14	57	33	67	50	0	20
Simuliidae	0	0	0	17	0	50	0	20	0
Blepharocera sp.	0	0	0	0	0	0	0	0	20
Tubifera sp.	0	0	29	0	0	0	0	0	0
Ablabesmyia janta	33	50	0	0	0	0	25	0	40
A. spp	0	25	14	33	0	83	50	0	0
Anatopynia sp.	67	50	0	17	0	0	0	0	0
Chironomus spp	67	50	14	33	0	33	0	60	0
Cladotanytarsus sp.	0	0	0	0	0	60	60	20	0
Clinotanypus spp	0	0	43	50	67	33	75	20	40
Corynoneura taris	0	0	0	0	0	0	25	0	0
Cryptotendipes casuarius	33	25	0	0	0	0	0	0	0
Cryptochironomus fulvus	33	75	0	17	67	83	100	40	60
Cricotopus spp	0	25	43	0	50	17	25	40	60
Dicrotendipes spp	0	50	0	50	0	17	0	80	20
Einfeldia sp.	33	25	0	0	0	0	0	40	0

TABLE 13 (CONTINUED)

MACROINVERTEBRATES COLLECTED IN QUALITATIVE SAMPLES NOVEMBER 1970 THROUGH FEBRUARY 1972

Organism Group or Genus	Percent Occurrence by Station								
	1	2	3	4	5	6	7	8	9
Endochironomus sp.	0	0	0	0	0	17	0	0	0
Glyptotendipes sp.	0	0	0	0	0	0	0	80	20
Goeldichironomus holoprasinus	33	25	29	0	17	0	0	20	0
Harnishia spp	33	0	0	0	0	0	0	80	60
Labrundinia floridana	0	0	0	0	0	17	25	0	80
Orthocladius sp.	33	0	0	0	0	0	0	0	0
Parachironomus spp	33	0	0	0	17	0	0	100	0
Paralauterborniella nigrohalterale	0	25	0	17	50	17	0	0	40
Pedionomus beckae	0	0	0	0	0	0	0	20	0
Pentaneura inculta	0	0	0	0	0	67	0	20	60
Polypedilum fallax	0	0	0	0	0	0	25	0	0
P. spp	0	25	29	83	50	100	75	20	80
Procladius spp	67	50	0	0	0	0	0	0	40
Psectrocladius sp.	0	0	0	0	0	17	25	0	20
Rheotanytarsus spp	0	0	0	17	17	50	25	40	100
Stenochironomus sp.	0	0	0	0	0	33	50	0	0
Tanypus spp	33	0	0	0	0	0	0	0	0
Tanytarsus spp	67	25	29	50	17	83	100	20	0
Thienemanniella xena	0	0	0	0	0	17	0	0	80
Tribelos sp.	0	0	0	0	0	0	25	0	0
Ferrissia sp.	0	0	29	67	100	67	50	60	100
Gyraulus sp.	0	0	14	17	17	50	25	0	0
Helisoma sp.	0	0	57	33	83	0	50	40	0
Physa sp.	0	0	57	67	100	100	75	0	80
Promenetus sp.	0	0	0	83	17	0	25	0	20
Pseudosuccinae sp.	0	0	14	0	17	0	0	0	0
Viviparus sp.	0	0	0	83	100	0	0	0	0
Unident. Gastropoda	0	0	43	50	33	0	25	40	0
Uniondae	0	0	0	0	33	67	75	0	40
Sphaeriidae	0	0	71	83	100	67	100	80	80
NUMBER OF SAMPLES	3	4	7	6	6	6	4	5	5

TABLE 14

MACROINVERTEBRATE SUMMARY FROM MULTIPLE-PLATE SAMPLERS NOVEMBER 1970 THROUGH JUNE 1973

Organisms per Square Meter

Inclusive Dates		Total Count	Total Species	Biotic Index	Number of Species *			Number of Individuals *		
					Class I **	Class II **	Class III **	Class I	Class II	Class III
Pond A										
1-26-72	- 2-23-72	130	13	11	4(31)	3(23)	1(8)	65	25	5
4-18-72	- 5-15-72	555	16	7	2(13)	3(19)	2(13)	25	250	70
5-15-72	- 6-12-72	1,460	16	7	3(19)	2(13)	3(19)	310	175	60
6-12-72	- 7-10-72	650	15	7	4(27)	2(13)	2(13)	70	270	120
7-24-72	- 8-22-72	2,065	13	4	1(8)	2(15)	3(23)	5	995	150
8-22-72	- 9-18-72	165	10	4	1(10)	2(20)	3(30)	5	70	35
10-16-72	- 11-13-72	505	14	6	2(14)	2(14)	5(36)	20	15	370
11-13-72	- 1-2-73	1,395	11	5	2(18)	1(9)	4(36)	10	140	1,150
1-2-73	- 1-29-73	3,825	9	3	1(11)	1(11)	4(44)	5	130	3,405
1-29-73	- 2-26-73	385	14	5	2(14)	1(7)	5(36)	10	50	135
2-26-73	- 3-26-73	770	14	2	0(0)	2(14)	5(36)	0	85	620
3-26-73	- 4-23-73	605	18	5	1(6)	3(17)	6(33)	5	85	280
4-23-73	- 5-21-73	480	12	2	0(0)	2(17)	4(33)	0	115	240
5-21-73	- 6-18-73	780	16	8	3(19)	2(12)	5(31)	80	25	360
7-16-73	- 7-16-73	650	16	3	0(0)	3(19)	4(25)	0	60	490
Station 1										
6-20-71	- 7-20-71	65	4	1	0(0)	1(25)	0(0)	0	40	0
10-28-71	- 11-23-71	1,765	17	6	2(12)	2(12)	5(29)	15	50	1,145
1-26-72	- 2-23-72	390	14	6	2(14)	1(14)	3(21)	10	55	240
4-18-72	- 5-15-72	770	23	16	6(26)	4(17)	5(22)	100	240	275
5-15-72	- 6-12-72	455	21	9	3(14)	3(14)	6(29)	45	85	225
6-12-72	- 7-10-72	615	19	7	2(11)	3(16)	5(26)	35	30	285
7-24-72	- 8-22-72	45	7	5	1(14)	3(43)	2(29)	5	20	15
8-22-72	- 9-18-72	1,115	21	13	5(24)	3(14)	5(24)	710	30	200
10-16-72	- 11-13-72	635	26	16	6(23)	4(15)	7(27)	155	40	350
11-13-72	- 1-2-73	550	17	18	8(47)	2(12)	4(23)	80	45	370
1-2-73	- 1-29-73	830	27	21	9(30)	3(11)	4(15)	195	50	365
1-29-73	- 2-26-73	2,020	25	16	7(28)	2(8)	4(16)	510	55	230
2-26-73	- 3-26-73	645	25	17	7(28)	3(12)	7(28)	220	25	165

*Class I, Pollution Intolerant; Class II, Moderately Tolerant; Class III, Pollution Tolerant.

**( ), Percentage of total species per sample.

TABLE 14 (CONTINUED)

MACROINVERTEBRATE SUMMARY FROM MULTIPLE-PLATE SAMPLERS
NOVEMBER 1970 THROUGH JUNE 1973

Organisms per Square Meter

Inclusive Dates	Total Count	Total Species	Biotic Index	Number of Species* Class I**	Class II**	Class III**	Number of Individuals* Class I	Class II	Class III
Station 1 (Cont.)									
3-26-73 - 4-23-73	210	12	8	3(25)	2(17)	4(33)	60	50	65
4-23-73 - 5-21-73	265	13	11	4(31)	3(23)	3(23)	70	60	120
5-21-73 - 6-18-73	160	13	11	5(38)	1(8)	2(16)	45	5	75
6-18-73 - 7-16-73	145	10	5	2(20)	1(10)	4(40)	10	5	110
Station 2									
11-2-70 - 12-1-70	180	10	2	0(0)	2(20)	2(20)	0	30	100
12-1-70 - 12-29-70	50	7	2	1(14)	0(0)	2(29)	10	0	10
1-15-71 - 2-12-71	40	3	2	1(33)	0(0)	1(33)	30	0	5
6-20-71 - 7-20-71	200	14	6	2(14)	2(14)	3(21)	45	10	15
10-28-71 - 11-23-71	775	22	3	0(0)	3(14)	4(18)	0	85	295
1-26-72 - 2-23-72	130	10	3	0(0)	3(30)	3(30)	0	45	35
4-18-72 - 5-15-72	630	19	9	3(16)	3(16)	7(37)	120	85	335
5-15-72 - 6-12-72	300	14	9	3(21)	2(14)	8(57)	55	45	195
7-24-72 - 8-22-72	160	10	3	1(10)	1(10)	3(30)	10	10	70
10-2-72 - 11-13-72	1,000	25	13	5(20)	3(12)	5(20)	130	625	55
Station 3									
11-2-70 - 12-1-70	760	9	0	0(0)	0(0)	4(44)	0	0	640
12-1-70 - 12-29-70	440	9	2	1(11)	0(0)	2(22)	5	0	75
1-15-71 - 2-12-71	50	6	0	0(0)	0(0)	2(33)	0	0	15
3-15-71 - 4-12-71	320	12	0	0(0)	0(0)	4(33)	0	0	130
10-28-71 - 11-23-71	90	6	0	0(0)	0(0)	3(50)	0	0	55
1-26-72 - 2-23-72	260	9	0	0(0)	0(0)	5(56)	0	0	195
7-24-72 - 8-22-72	260	10	1	0(0)	1(10)	7(70)	0	5	150
Station 4									
11-2-70 - 12-1-70	140	12	6	3(25)	0(0)	1(8)	65	0	20
12-1-70 - 12-29-70	65	5	0	0(0)	0(0)	4(80)	0	0	55
1-15-71 - 2-12-71	410	15	9	4(27)	1(7)	4(27)	35	5	60

*Class I, Pollution Intolerant; Class II, Moderately Tolerant; Class III, Pollution Tolerant
**( ), Percentage of total species per sample.

TABLE 14 (CONTINUED)

MACROINVERTEBRATE SUMMARY FROM MULTIPLE-PLATE SAMPLERS NOVEMBER 1970 THROUGH JUNE 1973

Organisms per Square Meter

Inclusive Dates	Total Count	Total Species	Biotic Index	Number of Species* Class I**	Class II**	Class III**	Number of Individuals* Class I	Class II	Class III
Station 4 (Cont.)									
3-15-71 - 4-12-71	243	11	5	2(18)	1(9)	4(36)	6	3	118
10-28-71 - 11-23-71	580	17	13	6(35)	1(6)	3(18)	280	35	15
1-26-72 - 2-23-72	430	7	5	2(29)	1(14)	1(14)	250	70	60
Station 5									
11-2-70 - 12-1-70	195	13	2	0(0)	2(15)	6(46)	0	65	90
12-29-70 - 12-29-70	300	18	7	3(17)	1(6)	3(17)	30	30	15
1-15-71 - 2-12-71	455	12	1	0(0)	1(8)	6(50)	0	20	270
3-15-71 - 4-4-71	1,586	25	10	4(16)	2(8)	7(28)	16	36	1,311
1-26-71 - 2-23-72	395	10	3	1(10)	1(10)	2(20)	5	90	170
4-18-72 - 5-15-72	300	20	13	5(25)	3(15)	5(25)	35	60	45
1-16-73 - 2-12-73	175	10	2	1(10)	0(0)	4(40)	5	0	135
2-12-73 - 3-13-73	340	22	10	4(18)	2(9)	7(32)	210	70	370
3-13-73 - 4-10-73	340	22	10	3(14)	4(18)	6(27)	30	55	140
4-10-73 - 5-8-73	420	18	9	3(17)	3(17)	4(22)	25	30	110
Station 6									
11-2-70 - 12-1-70	315	13	12	5(38)	2(15)	1(8)	230	15	10
12-1-70 - 12-19-71	885	13	14	6(46)	2(15)	0(0)	180	100	0
1-15-71 - 2-12-71	760	13	14	6(46)	2(15)	0(0)	75	455	0
3-15-71 - 4-4-71	1,411	16	17	8(50)	1(6)	2(13)	151	554	10
10-28-71 - 11-23-71	505	11	13	6(55)	1(9)	0(0)	270	80	0
1-26-72 - 2-23-72	1,450	12	14	6(50)	2(17)	1(8)	500	890	5
4-18-72 - 5-15-72	1,561	16	17	7(44)	3(19)	2(12)	433	835	10
7-24-72 - 8-22-72	740	16	16	7(44)	2(12)	2(12)	335	290	20
Station 7									
11-2-70 - 12-1-70	1,715	29	14	6(21)	2(7)	3(10)	495	20	95
12-1-70 - 12-29-70	1,975	17	19	8(47)	3(18)	1(6)	755	185	35
1-15-71 - 2-12-71	615	14	13	6(43)	1(7)	1(7)	165	55	5

*Class I, Pollution Intolerant; Class II, Moderately Tolerant; Class III, Pollution Tolerant
**( ), Percentage of total species per sample.

TABLE 14 (CONTINUED)

MACROINVERTEBRATE SUMMARY FROM MULTIPLE-PLATE SAMPLERS NOVEMBER 1970 THROUGH JUNE 1973

Organisms per Square Meter

Inclusive Dates	Total Count	Total Species	Biotic Index	Number of Species* Class I**	Class II**	Class III**	Number of Individuals* Class I	Class II	Class III
Station 7 (Cont.)									
3-15-71 - 4-1-71	2,389	21	23	11(52)	1(5)	2(10)	405	977	13
6-20-71 - 7-20-71	1,065	24	20	9(38)	2(8)	3(13)	205	235	15
10-28-71 - 11-23-71	1,010	14	13	6(43)	1(7)	2(14)	450	355	10
1-26-72 - 2-23-72	450	10	12	5(50)	2(20)	0(0)	135	290	0
4-18-72 - 5-15-72	1,090	23	22	9(37)	4(17)	2(8)	335	545	25
7-24-72 - 8-22-72	3,280	22	24	1(50)	2(9)	1(4)	625	2,475	10
1-16-73 - 2-13-73	1,940	15	23	10(67)	3(20)	1(7)	430	1,490	15
2-13-73 - 3-13-73	2,290	16	20	9(56)	2(13)	1(6)	920	1,280	30
3-13-73 - 4-10-73	2,480	17	19	8(47)	3(18)	1(6)	740	1,510	20
4-10-73 - 5-8-73	1,680	14	19	8(57)	3(21)	0(0)	450	1,190	0
Station 8									
11-2-70 - 12-1-70	1,620	6	2	1(17)	0(0)	3(50)	50	0	220
12-1-70 - 12-29-70	4,040	11	6	3(27)	0(0)	2(18)	50	0	260
3-15-71 - 4-1-71	16,530	17	9	4(24)	1(6)	7(41)	240	260	11,700
6-20-71 - 7-20-71	1,880	4	0	0(0)	0(0)	1(25)	0	0	2,860
10-28-71 - 11-23-71	1,615	16	4	1(6)	2(13)	5(31)	45	35	70
1-26-72 - 2-23-72	1,065	13	5	2(15)	1(8)	4(31)	35	15	465
4-18-72 - 5-15-72	1,050	7	3	1(14)	1(14)	3(43)	30	5	150
Station 9									
11-2-70 - 12 1-70	5,960	11	8	3(27)	2(18)	1(9)	4,210	520	455
12-1-70 - 12-29-70	700	6	5	2(33)	1(17)	0(0)	140	40	0
1-15-71 - 2-14-71	1,815	11	11	4(36)	3(27)	0(0)	255	1,280	0
3-15-71 - 4-1-71	3,295	15	12	5(33)	2(13)	0(0)	245	125	0
6-20-71 - 7-20-71	1,585	9	4	2(22)	0(0)	1(11)	10	0	20
10-28-71 - 11-23-71	1,920	12	11	4(33)	3(25)	0(0)	640	360	0
1-26-71 - 2-23-72	550	8	8	3(38)	2(25)	1(13)	120	250	50

*Class I, Pollution Intolerant; Class II, Moderately Tolerant; Class III, Pollution Tolerant.
**( ), Percentage of total species per sample.

TABLE 15

MACROINVERTEBRATES COLLECTED ON MULTIPLE-PLATE SAMPLERS NOVEMBER 1970 THROUGH JUNE 1973

Organism Group or Genus	Percent Occurrence By Station PA	1	2	3	4	5	6	7	8	9
Planariidae	0	0	0	0	17	22	0	0	0	11
Oligochaeta	57	81	33	86	67	78	0	63	50	11
Hirudinea	0	6	17	71	50	67	0	25	0	0
Asellus sp.	0	0	0	0	0	0	0	13	33	22
Hyalella azteca	0	0	17	0	0	89	0	0	50	78
Palaemonetus paludosus	0	0	0	0	0	0	0	0	0	0
Procambarus fallax	0	0	17	0	17	0	0	0	17	0
Baetis spiethi	0	0	0	0	17	0	100	63	0	0
Caenis diminutus	100	56	0	57	0	78	0	0	67	0
Callibaetis floridanus	0	0	17	43	50	44	0	0	0	0
Stenonema spp	0	0	0	0	67	33	100	100	0	100
Anax sp.	0	0	0	0	0	11	0	0	0	0
Boyeria vinosa	0	0	0	0	0	0	0	13	0	0
Etythemis simplicicollis	0	0	0	0	0	11	0	0	0	0
Miathyia marcella	0	0	0	0	0	11	0	0	0	0
Neurocordulia sp.	7	0	0	0	0	0	0	0	0	0
Pachydiplex longipennis	0	0	0	57	0	44	0	0	0	0
Perithemis seminole	0	6	0	0	0	0	0	0	0	0
Tetragoneura spp	0	6	17	0	17	11	0	0	0	0
Argia spp	0	31	0	0	17	11	25	50	0	0
Calopteryx sp.	0	0	0	0	0	0	0	25	0	0
Enallagma spp	7	25	33	14	0	78	13	0	0	11
Heterina titia	0	0	0	0	0	0	13	0	0	0
Ischneura spp	71	31	67	14	17	33	0	0	0	0
Corixidae	7	0	0	0	0	0	0	0	0	0
Veliidae	0	0	0	14	0	0	0	0	0	0
Dytiscidae	0	0	0	0	17	11	13	13	0	0
Elmidae	0	0	0	0	33	0	50	75	0	78
Gyrinidae	36	13	33	29	0	11	0	0	0	0
Hydrophylidae	0	0	0	0	0	0	0	0	0	11

TABLE 15 (CONTINUED)

MACROINVERTEBRATES COLLECTED ON MULTIPLE-PLATE SAMPLERS NOVEMBER 1970 THROUGH JUNE 1973

Organism Group or Genus	Percent Occurrence By Station									
	PA	1	2	3	4	5	6	7	8	9
Corydalus cornutus	0	0	0	0	0	0	38	25	0	11
Sialis sp.	0	0	0	0	0	0	13	0	0	0
Lepidoptera	0	0	0	14	0	0	0	0	0	0
Ceratopogonidae	43	50	17	14	0	56	13	13	0	0
Culicidae	0	6	0	14	0	0	0	0	0	0
Simuliidae	0	0	0	0	17	0	88	75	0	22
Lubifera sp.	0	0	0	14	0	0	0	0	0	0
Cheumatopsyche sp.	0	50	0	0	17	0	100	100	0	89
Hydropsyche sp.	0	31	0	0	0	0	0	0	0	0
Oecetis sp.	14	25	67	0	0	0	50	63	0	11
Orthotrichia sp.	0	19	0	0	0	0	0	0	0	0
Oxyethira sp.	29	63	0	0	0	0	0	0	0	0
Polycentropus sp.	50	69	33	0	0	11	13	25	0	11
Ablabesmyia janta	100	69	50	14	0	33	0	13	0	11
A. spp	79	88	50	0	33	44	13	38	0	0
Anatopynia sp.	36	19	17	0	0	0	0	0	0	0
Chironomus spp	21	31	83	43	17	44	13	0	83	0
Cladotanytarsus sp.	0	6	0	0	0	0	0	0	0	11
Clinotanypus spp	0	0	0	0	0	22	13	0	0	0
Corynoneura taris	0	19	0	14	50	22	63	75	17	0
Cricotopus spp	0	56	17	0	17	56	0	38	50	44
Cryptochironomus fulvus	36	56	17	0	0	22	0	0	0	0
Cryptotendipes casuaris	21	44	33	0	0	0	0	0	0	0
Dicrotendipes spp	29	63	50	0	0	22	0	0	100	56
Endochironomus nigrans	21	25	0	0	0	11	0	0	0	0
Einfeldia sp.	0	0	0	0	17	0	0	0	50	11
Glyptotendipes sp.	100	25	17	29	0	11	0	0	83	0
Goeldiehironomus holoprasinus	29	13	17	43	17	22	0	0	50	0
Harnischia spp	21	13	33	0	0	11	0	0	0	0
Kiefferulus dux	7	0	0	0	0	0	0	0	0	0
Labrundinia spp	21	50	33	0	67	22	13	38	33	0
Larsia berneri	14	38	0	0	0	0	0	0	0	0

TABLE 15 (CONTINUED)

MACROINVERTEBRATES COLLECTED ON MULTIPLE-PLATE SAMPLERS NOVEMBER 1970 THROUGH JUNE 1973

Organism Group or Genus	Percent Occurrence By Station									
	PA	1	2	3	4	5	6	7	8	9
Nilotanypus americanus	0	0	0	0	17	0	0	88	0	0
Nilothauma bicornis	86	13	0	0	0	0	13	0	0	0
Orthocladius sp.	64	13	0	0	0	0	0	0	0	0
Parachironomus spp	86	50	50	14	17	11	13	0	50	11
Paralauterborniella nigrohalterale	0	6	0	0	0	22	0	0	0	0
Pedionomus beckae	0	0	17	0	0	0	0	0	50	0
Pentaneura inculta	0	0	0	0	17	11	63	100	17	56
Polypedilum fallax	0	0	50	0	17	0	25	38	0	0
P. spp	36	50	0	14	50	44	100	100	17	100
Procladius spp	29	38	50	0	0	11	0	0	0	0
Psectrocladius sp.	50	44	0	0	0	33	13	50	50	11
Rheocricotopus robacki	0	0	0	0	0	0	0	25	67	0
Rheotanytarsus spp	0	0	0	29	17	22	100	75	0	100
Stenochironomus sp.	0	0	0	0	0	0	25	0	0	0
Tanypus spp	0	0	50	0	0	11	0	0	0	0
Tanytarsus spp	36	31	0	29	83	44	38	75	0	0
Thienemanniella xena	0	0	0	0	17	11	75	75	17	100
Tribelos sp.	0	0	0	0	17	0	0	13	0	0
Chironomini	0	0	0	0	0	0	13	25	0	33
Tanytarsini	7	63	0	0	17	0	0	13	0	0
Ferrissia sp.	0	44	17	43	67	89	50	63	50	11
Helisoma sp.	0	0	0	71	0	33	25	0	0	0
Physa sp.	0	0	0	14	33	56	0	13	0	0
Promenetus sp.	0	0	0	0	17	22	0	13	0	0
Pseudosuccinae sp.	0	0	0	29	0	0	0	0	0	0
Viviparus sp.	0	0	0	0	33	33	0	13	0	0
Gastropoda	0	0	0	0	17	33	0	13	0	0
Unionidae	0	0	0	0	0	0	0	0	0	0
Sphaeriidae	0	0	0	43	17	22	13	13	0	0
NUMBER OF SAMPLES	14	16	6	7	6	9	8	8	6	9

TABLE 16

SURFACE WATER
MICROBIOLOGICAL ANALYSES
JULY 1971 THROUGH JUNE 1973

Viable Organisms per Milliliter

	Aerobic Bacterial Counts	Anaerobic Bacterial Counts	Counts of Sulfur-Oxidizing Bacteria	Counts of Sulfur-Reducing Bacteria	Gram (+) Bacterial Counts Possible Staphylococcus	Counts of Filamentous Fungi	Fecal Coliform Counts (per 100 ml)
Pond A							
7-10-71	---	---	---	---	10	24	---
8-16-71	1,875	—	161	—	20	20	120
9-20-71	3,900	—	78	---	33	14	0
10-23-71	5,000	320	32	0	44	18	0
11-30-71	3,900	780	50	5	15	12	0
12-13-71	5,000	625	42	5	45	7	0
1-10-72	3,000	310	—	0	10	2	0
2-14-72	3,600	130	70	0	10	6	0
3-14-72	9,700	180	73	10	15	6	14
4-10-72	11,900	360	84	14	48	13	25
5-15-72	9,800	200	125	8	31	8	40
6-15-72	1,220	124	20	28	15	6	12
7-12-72	4,710	86	51	3	36	15	50
8-14-72	19,200	660	195	255	325	18	62
9-25-72	4,600	580	162	0	34	7	150
10-9-72	5,210	300	—	5	43	10	18
11-13-72	11,000	205	1,650	0	30	8	15
12-11-72	32,800	[illegible]	—	1	50	—	0
1-15-73	52,000	140	—	0	31	—	80
2-12-73	22,500	—	—	—	61	—	500
3-14-73	38,500	520	—	32	11,000	—	150
4-9-73	89,400	1,510	—	20	201	—	1,000
5-15-73	47,000	730	—	18	78	—	90
6-11-73	2,700	1,150	—	8	48	—	0

TABLE 16 (CONTINUED)

SURFACE WATER
MICROBIOLOGICAL ANALYSES
JULY 1971 THROUGH JUNE 1973

Viable Organisms per Milliliter

	Aerobic Bacterial Counts	Anaerobic Bacterial Counts	Counts of Sulfur-Oxidizing Bacteria	Counts of Sulfur-Reducing Bacteria	Gram (+) Bacterial Counts Possible Staphylococcus	Counts of Filamentous Fungi	Fecal Coliform Counts (per 100 ml)
Pond Effluent							
7-10-71	2,000	—	—	—	12	23	—
8-16-71	1,950	—	305	—	23	12	220
9-20-71	3,900	—	547	—	33	18	0
10-23-71	10,400	400	70	23	80	19	0
11-30-71	2,000	560	60	10	26	5	10
1-10-72	2,300	400	—	0	10	4	2
2-14-72	3,200	320	36	0	80	4	0
3-14-72	5,400	265	85	10	51	9	13
5-15-72	4,300	780	200	8	130	10	175
6-15-72	2,800	1,250	177	153	120	18	34
7-12-72	6,200	330	57	50	67	17	525
8-14-72	18,700	680	214	250	240	25	79
9-25-72	10,300	1,350	175	13	19	6	310
10-9-72	7,350	400	—	8	50	6	6
11-13-72	12,100	180	2,750	18	58	9	15
12-11-72	27,800	400	—	1	112	—	13
1-15-73	21,600	150	—	0	25	—	39
2-12-73	9,200	—	—	—	45	—	—
3-14-73	61,200	9,120	—	62	35,000	—	30
4-9-73	63,000	800	—	13	150	—	2,000
5-15-73	12,500	720	—	16	38	—	250
6-11-73	2,100	1,400	—	55	44	—	10

TABLE 16 (CONTINUED)

SURFACE WATER
MICROBIOLOGICAL ANALYSES
JULY 1971 THROUGH JUNE 1973

Viable Organisms per Milliliter

	Aerobic Bacterial Counts	Anaerobic Bacterial Counts	Counts of Sulfur-Oxidizing Bacteria	Counts of Sulfur-Reducing Bacteria	Gram (+) Bacterial Counts Possible Staphylococcus	Counts of Filamentous Fungi	Fecal Coliform Counts (per 100 ml)
Station 1							
7-10-71	4,100	---	---	---	40	14	---
8-16-71	3,200	---	422	---	127	12	30
9-20-71	10,300	---	660	---	121	8	0
10-23-71	8,340	610	75	56	34	10	0
11-30-71	4,100	1,950	120	38	100	9	26
12-13-71	3,300	765	87	25	27	8	0
1-10-72	10,500	1,620	---	9	56	3	7
2-14-72	5,000	750	125	0	47	10	5
3-14-72	13,200	810	900	20	72	27	80
4-10-72	12,400	1,200	280	40	118	18	104
5-15-72	10,300	1,050	710	32	163	15	300
6-15-72	6,500	850	218	62	102	18	86
7-12-72	8,300	910	305	155	137	16	1,100
8-14-72	11,900	920	293	238	210	10	20
9-25-72	3,200	1,200	188	31	36	3	350
10-9-72	2,690	400	---	32	134	10	10
11-13-72	2,050	330	1,100	10	59	5	18
12-11-72	5,100	660	---	12	309	---	5
1-15-73	2,000	250	---	14	48	---	51
2-12-73	750	---	---	---	34	---	35
3-14-73	72,500	4,200	---	70	38,000	---	15
4-9-73	4,800	600	---	11	70	---	20
5-15-72	3,300	700	---	35	75	---	108
6-11-73	4,800	1,200	---	15	164	---	26

TABLE 17

GROUND WATER
PHYSICAL AND CHEMICAL DATA
NOVEMBER 1970 THROUGH JUNE 1973

Date	pH Lab	Alk as $CaCO_3$ mg/l	Acid as $CaCO_3$ mg/l	TDS mg/l	Cl^- mg/l	Hardness as $CaCO_3$ mg/l	Phosphate (mg P/l) Total	Phosphate (mg P/l) Ortho	Nitrogen (mg N/l) NO_3	Nitrogen (mg N/l) NO_2	Nitrogen (mg N/l) NH_3	Nitrogen (mg N/l) ORG	Temp C	Turb JTU	Solids Total mg/l	Solids Susp mg/l
Well 1																
4-3-73	4.4	0	75	—	13.0	8.1	.04	.02	.01	.001	.00	.03	21	4.0	5	—
Well 2																
12-4-72	4.1	0	91	96	7.0	15.0	.48	.48	.04	.001	.00	.07	23	60.0	183	87
Well 33																
12-4-72	3.9	0	94	79	7.0	13.3	.30	.18	.02	.001	.00	.08	23	32.0	109	30
Well 34																
12-4-72	3.9	0	73	86	7.0	12.9	.14	.14	.15	.001	.00	.40	23	158.0	176	88
Well 3																
12-15-70	—	—	—	—	—	—	.10	.03	—	.004	.00	.46	20	—	—	—
1-4-71	6.5	40	61	—	13.0	35.6	.12	.01	—	.004	.03	.01	22	—	—	—
1-6-71	7.0	45	38	—	14.0	39.3	.07	.01	.01	.003	.03	2.59	22	—	—	—
1-11-71	6.5	42	131	—	14.0	30.3	.51	.00	.00	.005	.00	.55	22	—	—	—
1-18-71	6.2	31	153	—	12.0	35.1	.04	.00	.04	.007	.08	.63	22	—	—	—
1-25-71	6.7	39	124	80	11.0	29.4	.00	.00	.01	.002	.00	.86	22	4.0	101	21
2-16-71	6.4	27	29	193	13.0	29.8	.30	.01	.00	.000	.00	.34	22	—	217	24
2-22-71	5.9	28	142	510	13.0	—	.05	.01	.01	.004	.00	.00	22	—	526	16
3-1-71	6.5	30	57	113	14.0	—	.03	.02	.01	.004	.00	.60	22	2.1	149	36
4-5-71	6.4	43	91	133	6.0	36.1	.03	.01	.03	.005	.01	.51	22	20.0	159	26
5-10-71	5.5	29	157	157	9.0	—	.55	.02	.02	.003	—	—	22	4.8	167	10
7-21-71	6.4	14	44	122	4.0	—	.05	.00	.00	.003	.00	.41	23	7.7	136	14
10-4-71	7.4	8	33	59	10.0	30.1	.10	.02	—	—	.37	.60	23	—	66	7
12-7-71	—	—	—	297	55.0	166.0	.13	.02	—	.006	.94	1.27	23	5.3	229	2
12-20-71	—	—	—	372	59.0	184.0	—	—	—	.004	1.36	1.96	24	5.7	397	25
1-18-72	—	—	—	553	26.0	216.0	.02	.01	—	.003	5.20	2.21	21	35.0	570	17
2-7-72	—	—	—	526	55.0	164.0	.01	.00	—	.004	8.80	3.60	21	9.8	545	19
4-3-72	4.4	—	>425	—	—	252.0	—	.01	.03	.003	13.90	6.50	27	—	—	—

TABLE 17 (CONTINUED)

GROUND WATER
PHYSICAL AND CHEMICAL DATA
NOVEMBER 1970 THROUGH JUNE 1973

Date	pH Lab	Alk as $CaCO_3$ mg/l	Acid as $CaCO_3$ mg/l	TDS mg/l	Cl- mg/l	Hardness as $CaCO_3$ mg/l	Phosphate Total mg P/l	Phosphate Ortho mg P/l	Nitrogen NO_3 mg N/l	Nitrogen NO_2 mg N/l	Nitrogen NH_3 mg N/l	Nitrogen ORG mg N/l	Temp C	Turb JTU	Solids Total mg/l	Solids Susp mg/l
Well 3 (Cont.)																
6-5-72	4.4	—	—	907	—	253.0	.01	—	—	—	6.00	.53	24	9.2	930	23
8-7-72	4.8	204	1660	982	26.0	299.3	.03	.01	.13	.002	1.03	54.98	28	17.0	1035	53
10-16-72	4.6	19	950	558	30.6	171.0	.01	.00	.11	.002	8.00	26.24	28	30.0	569	11
11-5-72	4.7	100	1130	1016	32.0	227.1	.06	.04	.25	.000	.65	29.65	25	42.0	1019	3
1-22-73	4.7	98	690	1024	53.0	474.4	.04	.02	.19	.000	3.50	33.33	22	19.5	1037	6
3-19-73	4.9	139	—	685	13.0	203.0	.04	.00	—	—	26.40	2.60	—	5.0	687	2
5-8-73	5.3	150	184	521	13.0	330.4	.06	.02	.08	.003	16.10	.80	23	13.0	540	19
Well 29																
1-22-73	5.7	323	520	689	22.0	308.5	1.60	.78	1.39	.007	10.00	4.80	22	275.0	989	300
3-19-73	6.2	588	—	1232	—	616.7	.12	.08	—	—	13.00	13.40	—	820.0	2132	900
5-7-73	6.1	608	851	1127	18.0	346.4	.04	—	—	—	13.00	8.80	23	1700.0	1522	395
Well 4																
5-17-71	6.4	55	79	504	—	51.2	.07	.05	.01	.005	.37	.90	22	18.0	511	7
7-21-71	6.2	31	51	117	3.0	—	.00	.00	—	.004	.20	1.04	23	11.0	131	14
8-10-71	6.8	46	87	113	5.0	—	.02	.01	—	.004	.15	.00	23	6.3	128	15
9-20-71	7.1	22	112	—	6.0	46.6	—	—	—	—	.00	1.08	23	—	—	—
10-19-71	7.0	36	204	81	8.0	53.5	.23	.01	.07	.006	.26	.42	24	6.9	83	2
12-7-71	—	—	—	82	6.0	53.1	.22	.01	—	.007	.42	.73	23	1.4	86	4
12-20-71	—	—	—	67	6.0	20.4	—	—	—	.005	.00	.75	24	3.7	67	0
2-7-72	—	—	—	28	13.0	21.1	.01	.01	—	.008	.00	.30	21	5.4	52	24
4-3-72	6.4	14	24	45	—	19.8	—	.00	.01	.000	1.50	1.69	21	6.9	52	7
6-5-72	5.8	—	—	62	—	15.8	.26	—	—	—	.00	.45	21	4.8	74	12
8-7-72	6.4	14	29	74	6.0	53.2	.01	.01	.05	.005	.00	.73	22	1.9	104	30
10-2-72	6.0	16	39	19	6.0	21.0	.01	.02	.07	.001	.00	.28	24	2.5	24	5
11-5-72	5.2	11	79	52	7.0	15.6	.04	.00	.30	.000	.00	.05	23	10.0	52	0

TABLE 17 (CONTINUED)

GROUND WATER
PHYSICAL AND CHEMICAL DATA
NOVEMBER 1970 THROUGH JUNE 1973

Date	pH Lab	Alk as $CaCO_3$ mg/l	Acid as $CaCO_3$ mg/l	TDS mg/l	Cl- mg/l	Hardness as $CaCO_3$ mg/l	Phosphate Total mg P/l	Phosphate Ortho mg P/l	Nitrogen NO_3 mg N/l	Nitrogen NO_2 mg N/l	Nitrogen NH_3 mg N/l	Nitrogen ORG mg N/l	Temp C	Turb JTU	Solids Total mg/l	Solids Susp mg/l
Well 5																
12-15-70	—	—	—	—	—	—	.03	.01	—	.004	.00	.15	20	—	—	—
1-4-71	6.7	20	112	—	8.0	7.8	.03	.01	.01	.004	.00	.00	22	—	—	—
1-6-71	6.8	42	114	—	10.0	17.8	.00	.00	.02	.004	.00	4.44	22	—	—	—
1-11-71	5.8	21	213	—	9.0	14.0	.05	.00	—	.007	.00	.28	22	—	—	—
1-18-71	6.5	15	80	31	10.0	8.9	.00	.00	.03	.006	.00	.20	22	9.0	54	21
1-25-71	6.0	13	155	48	9.0	7.7	.05	.00	.01	.002	.86	.67	22	5.0	70	22
2-16-71	6.5	7	—	24	8.0	5.4	.02	.01	.02	.000	.01	.07	22	—	93	69
2-22-71	5.2	8	151	39	9.0	5.1	.21	.01	.00	.003	.00	.20	22	—	46	7
3-1-71	5.6	7	71	46	10.0	—	.10	.01	.05	.004	.02	.20	23	2.1	57	11
4-5-71	5.3	7	125	18	6.0	—	.00	.00	.05	.001	.13	.61	22	11.0	62	18
5-10-71	4.9	5	183	66	6.0	—	.02	.02	.00	.001	—	—	22	4.5	71	5
7-21-71	4.9	2	54	—	2.0	3.5	—	.03	.00	.002	.00	.23	23	—	—	—
8-26-71	5.6	5	43	66	—	—	.02	.00	.00	.001	.16	—	23	6.9	72	6
9-8-71	5.8	14	152	64	8.0	17.9	.02	.01	—	.003	.06	.12	23	1.8	67	3
10-4-71	7.2	6	24	26	8.0	8.0	—	.11	—	—	.00	.47	23	—	29	3
11-1-71	6.0	12	418	56	10.0	35.0	.29	.00	—	.003	.32	.68	24	6.8	63	7
1-3-72	—	—	—	126	15.0	6.5	—	—	—	.004	.30	.25	23	1.4	130	4
3-6-72	6.0	12	111	23	12.0	7.9	.14	.04	—	.002	.23	.60	21	1.9	29	6
5-8-72	5.2	—	—	23	12.0	8.1	< .01	—	—	—	.00	.03	21	4.5	31	8
6-26-72	6.4	35	32	49	—	34.5	.04	.00	.25	.024	.06	.40	23	1.8	55	6
9-18-72	4.5	0	141	35	12.0	8.3	.01	.00	.05	.002	.10	.13	25	5.0	37	2
11-28-72	—	—	—	95	30.0	19.5	.02	.00	.26	.003	.35	.15	23	—	107	12
3-19-73	4.0	0	—	290	62.0	47.6	.02	.00	—	—	1.40	1.20	—	8.0	292	2
5-21-73	4.2	0	660	393	80.0	71.7	.04	.02	.08	.001	1.72	.40	23	13.0	396	3
Well 27																
11-1-72	7.2	53	164	123	10.0	—	.11	.00	—	.002	.21	.78	24	75.0	179	56
1-3-72	—	—	—	117	11.0	31.8	—	—	—	.002	.40	.35	23	6.6	128	11
3-6-72	7.0	36	45	59	11.0	15.2	.10	.00	—	.002	.38	1.10	21	6.9	87	28

TABLE 17 (CONTINUED)

GROUND WATER
PHYSICAL AND CHEMICAL DATA
NOVEMBER 1970 THROUGH JUNE 1973

Date	pH Lab	Alk as $CaCO_3$ mg/l	Acid as $CaCO_3$ mg/l	TDS mg/l	Cl- mg/l	Hardness as $CaCO_3$ mg/l	Phosphate Total mg P/l	Phosphate Ortho mg P/l	Nitrogen NO_3 mg N/l	Nitrogen NO_2 mg N/l	Nitrogen NH_3 mg N/l	Nitrogen ORG mg N/l	Temp C	Turb JTU	Solids Total mg/l	Solids Susp mg/l
Well 27 (Cont.)																
5-8-72	5.4	---	---	48	15.0	7.4	< .01	---	---	---	.00	.04	21	35.0	69	21
6-26-72	6.3	21	32	52	---	20.6	.07	.05	.11	.002	.00	.36	23	7.8	112	60
9-18-72	5.0	7	65	24	10.0	14.0	.01	.00	.05	.008	.07	.13	25	5.0	56	32
11-28-72	---	---	---	75	19.0	15.0	.00	.00	.23	.003	.15	.12	23	---	86	11
3-19-73	5.6	195	---	73	18.0	16.7	.02	.00	---	---	.00	.60	---	4.0	74	1
5-21-73	4.3	0	110	80	23.0	18.7	.02	.00	.03	.001	.23	.23	23	8.0	85	5
Well 28																
11-1-71	5.6	5	165	107	12.0	30.0	.13	.06	---	.002	.10	.46	24	50.0	189	82
1-3-72	---	---	---	127	5.0	13.9	---	---	---	.002	.40	.95	23	6.9	132	5
3-6-72	6.3	7	56	---	14.0	13.4	.10	.05	---	.003	.75	.75	21	7.9	93	---
5-8-72	5.1	---	---	73	---	12.2	< .01	---	---	---	.00	.16	21	11.0	75	2
6-26-72	4.7	1	21	67	---	16.7	.03	.00	.54	.001	.10	.29	23	3.1	80	13
9-18-72	4.8	2	46	51	3.0	14.1	.02	.01	.14	.008	.00	.10	25	35.0	129	78
11-28-72	---	---	---	67	7.0	18.3	.00	.00	.22	.003	.12	.50	23	---	82	15
3-19-73	4.8	3	---	80	5.0	22.8	.08	.02	---	---	.00	.60	---	33.0	89	9
5-21-73	4.5	0	30	43	7.0	15.3	.04	.02	.03	.002	.00	.25	23	11.0	49	6
Well 6																
12-15-70	---	---	---	---	---	---	---	---	.17	.004	.00	.05	20	---	---	---
1-4-71	6.2	27	100	---	9.0	---	.09	.00	.01	.002	.08	.00	22	---	---	---
1-6-71	5.7	15	136	---	8.0	8.4	.01	.00	.01	.004	.00	.10	22	---	---	---
1-18-71	6.2	12	214	30	9.0	6.0	.04	.00	.05	.007	.00	.29	22	26.0	65	35
1-25-71	6.0	12	266	37	12.0	6.5	.01	.00	.01	.002	.00	.48	22	12.0	64	27
2-16-71	5.2	6	39	17	8.0	4.9	.04	.00	.02	.000	.03	.10	22	---	43	26
2-22-71	5.5	9	70	34	9.0	4.9	.04	.01	.01	.004	.00	.00	22	---	37	3
3-1-71	5.5	7	76	123	9.0	---	.00	.00	.00	.004	.00	.52	23	3.9	145	22
4-5-71	5.5	8	122	92	5.0	---	.02	.00	.05	.003	.00	.44	22	35.0	96	4
5-10-71	5.3	8	93	42	7.0	5.8	---	.02	.00	.003	.00	.00	22	6.6	45	3

TABLE 17 (CONTINUED)

GROUND WATER
PHYSICAL AND CHEMICAL DATA
NOVEMBER 1970 THROUGH JUNE 1973

Date	pH Lab	Alk as $CaCO_3$ mg/l	Acid as $CaCO_3$ mg/l	TDS mg/l	Cl- mg/l	Hardness as $CaCO_3$ mg/l	Phosphate Total mg P/l	Phosphate Ortho mg P/l	Nitrogen NO_3 mg N/l	Nitrogen NO_2 mg N/l	Nitrogen NH_3 mg N/l	Nitrogen ORG mg N/l	Temp C	Turb JTU	Solids Total mg/l	Solids Susp mg/l
Well 6 (Cont.)																
7-21-71	—	4	47	—	2.0	4.6	.01	.00	.00	.001	.00	.37	23	—	—	—
8-26-71	5.7	7	54	48	—	—	—	—	.01	.003	.11	.00	23	6.6	64	16
9-8-71	7.0	8	194	43	7.0	4.9	.06	.01	—	.003	.00	.02	23	2.0	50	7
8-7-72	6.8	50	43	50	8.0	57.7	.01	.01	.03	.004	.00	.76	22	9.2	92	42
10-16-72	5.3	10	69	27	7.0	15.0	.06	.00	.06	.002	.07	.00	24	8.0	30	3
11-28-72	—	—	—	34	6.0	8.2	.02	.00	.20	.003	.12	.48	23	—	45	11
1-22-73	4.6	1	80	48	11.0	8.4	.10	.00	.26	.000	.10	.20	22	18.5	62	14
3-19-73	5.2	5	—	54	6.0	5.3	.02	.00	—	—	.00	.80	—	4.0	55	1
5-7-73	5.2	15	56	26	14.0	9.6	.02	.02	.03	.002	2.80	.60	23	6.0	31	5
Well 7																
12-4-72	5.5	25	70	63	7.0	33.1	.12	.12	.13	.000	.00	.32	23	12.5	66	3
4-16-73	5.1	4	60	54	10.0	16.2	.04	.02	.00	.002	.00	.40	22	6.0	63	2
6-18-73	4.9	10	103	15	11.0	13.5	.02	.02	.00	.001	.13	.20	25	4.0	25	10
Well 15																
12-4-72	5.8	43	73	81	8.0	59.1	.06	.04	.19	.001	.00	.12	23	33.0	152	71
4-16-73	5.2	4	65	63	7.0	22.4	.02	.02	.00	.002	.00	.57	22	11.0	110	23
6-18-73	5.6	25	59	51	8.0	33.2	.01	.01	.00	.000	.11	.35	25	8.0	61	10
Well 8																
12-18-72	4.9	6	87	26	15.0	12.8	.16	.02	.20	.000	.00	.00	23	3.0	28	2
Well 9																
5-17-71	6.5	50	83	261	6.0	158.3	—	.03	.02	.005	.39	.94	22	26.0	383	122
7-21-71	7.2	138	22	281	2.0	—	.69	.00	.00	.005	.10	.33	23	9.8	293	12
8-10-71	7.1	96	54	233	6.0	—	.02	.01	—	.005	.27	.00	23	4.8	246	13
9-20-71	8.0	38	42	168	—	109.0	—	—	—	—	.00	.30	23	—	173	5
10-19-71	5.9	5	149	139	8.0	84.8	.16	.01	.03	.011	.10	.47	24	5.3	159	20

TABLE 17 (CONTINUED)

GROUND WATER
PHYSICAL AND CHEMICAL DATA
NOVEMBER 1970 THROUGH JUNE 1973

Date	pH Lab	Alk as $CaCO_3$ mg/l	Acid as $CaCO_3$ mg/l	TDS mg/l	Cl- mg/l	Hardness as $CaCO_3$ mg/l	Phosphate Total mg P/l	Phosphate Ortho mg P/l	Nitrogen NO_3 mg N/l	Nitrogen NO_2 mg N/l	Nitrogen NH_3 mg N/l	Nitrogen ORG mg N/l	Temp C	Turb JTU	Solids Total mg/l	Solids Susp mg/l
Well 9 (Cont.)																
12-7-71	—	—	—	107	5.0	54.9	.15	.01	—	.007	.37	1.16	23	3.7	113	6
2-21-72	—	—	—	58	8.0	34.6	.13	.00	—	.004	.30	1.41	22	6.0	78	20
4-17-72	5.8	24	64	41	17.0	35.9	.08	.01	.03	.007	.34	1.36	21	3.9	58	17
6-20-72	6.6	28	12	114	—	34.1	.43	.10	.14	.004	.00	.60	22	4.9	117	3
9-27-72	5.4	19	91	59	10.0	21.4	.02	.03	.11	.008	.03	.33	24	5.0	66	7
10-16-72	5.7	20	62	68	8.0	25.5	.10	.06	.06	.002	.00	.17	23	6.5	69	1
11-5-72	5.5	21	86	98	10.0	28.8	.04	.02	.16	.000	.00	.32	23	11.0	98	0
Well 10																
12-15-70	—	—	—	—	—	—	.08	.03	—	—	.00	.01	20	—	—	—
1-4-71	6.0	—	—	—	10.0	8.0	.00	.00	.01	.004	.00	4.46	22	—	—	—
1-6-71	6.0	11	44	—	10.0	6.3	.04	.00	.02	.004	.00	4.27	22	—	—	—
1-11-71	6.2	10	149	—	10.0	6.9	.14	.00	.01	.007	.00	.29	22	—	—	—
1-18-71	5.0	3	65	49	10.0	6.0	.07	.00	.03	.004	.09	.33	22	15.0	70	21
1-25-71	6.0	12	210	41	6.0	5.7	.02	.00	.01	.001	.00	.67	22	7.0	61	20
2-16-71	6.0	7	13	9	9.0	4.9	.09	.01	.00	.000	.04	.02	22	—	40	31
2-22-71	5.3	5	74	8	9.0	4.7	.01	.00	.01	.004	.12	.00	22	—	16	8
3-1-71	5.8	6	40	54	8.0	—	.10	.02	.02	.004	.00	.27	23	0.7	77	23
4-5-71	5.3	6	73	137	14.0	—	.01	.00	.04	.001	.00	.34	22	7.5	142	5
5-10-71	5.0	4	121	2	8.0	4.8	.02	.00	.00	.001	1.82	.00	22	2.6	8	6
7-21-71	5.7	5	24	—	2.0	3.9	—	.00	—	.001	.00	.00	23	—	—	—
8-26-71	5.6	6	49	37	—	—	.39	.03	.04	.010	.11	.00	23	9.5	52	15
9-8-71	5.3	7	164	36	7.0	5.0	.11	.00	—	.003	.00	.02	23	1.4	36	0
10-4-71	6.9	4	49	29	7.0	7.2	.08	.01	—	—	.00	.39	23	5.4	42	13
11-1-71	5.3	6	229	—	7.0	5.1	.04	.02	—	.004	.30	1.27	24	9.8	—	—
1-3-72	—	—	—	80	11.0	3.5	—	—	—	.004	.50	.35	23	2.6	84	4
3-6-72	6.2	7	58	16	11.0	6.4	—	—	—	.003	.22	.30	21	1.9	16	0
5-8-72	6.3	—	—	13	—	5.3	—	—	—	—	.00	.00	20	16.0	16	3
6-26-72	5.5	5	43	3	—	5.9	.03	.00	.09	.000	.11	.16	22	6.8	13	10

TABLE 17 (CONTINUED)

GROUND WATER
PHYSICAL AND CHEMICAL DATA
NOVEMBER 1970 THROUGH JUNE 1973

Date	pH Lab	Alk as $CaCO_3$ mg/l	Acid as $CaCO_3$ mg/l	TDS mg/l	Cl- mg/l	Hardness as $CaCO_3$ mg/l	Phosphate Total mg P/l	Phosphate Ortho mg P/l	Nitrogen NO_3 mg N/l	Nitrogen NO_2 mg N/l	Nitrogen NH_3 mg N/l	Nitrogen ORG mg N/l	Temp C	Turb JTU	Solids Total mg/l	Solids Susp mg/l
Well 10 (Cont.)																
9-18-72	4.9	3	84	3	7.0	5.2	.01	.00	.02	.011	.10	.00	25	2.5	10	7
12-18-72	5.2	8	67	35	10.0	8.1	.10	.04	.08	.000	.00	.00	23	3.0	52	17
4-16-73	5.0	3	51	173	7.0	5.2	.02	.00	.00	.002	.00	.53	22	3.0	180	6
6-18-73	4.5	0	34	7	6.0	8.6	.00	.00	.00	.001	.11	.00	25	2.0	10	3
Well 11																
11-1-71	5.6	6	158	4	8.0	7.6	.61	.06	---	.003	.11	2.63	24	14.0	35	31
1-3-72	---	---	---	106	13.0	9.0	---	---	---	.004	.27	.35	23	4.5	120	14
3-6-72	5.6	6	48	30	10.0	13.4	.41	.06	---	---	.20	.50	21	7.9	50	20
5-8-72	5.9	---	---	---	---	6.2	< .01	---	---	.001	.00	.04	20	12.0	---	---
6-26-72	5.5	5	45	10	---	5.9	.03	.00	.11	.000	.06	.07	23	12.0	33	23
9-18-72	4.8	2	68	4	7.0	6.0	.01	.00	.03	.003	.07	.00	25	5.0	10	6
12-18-72	5.2	3	56	34	9.0	7.2	.04	.00	.07	.003	.00	.00	23	4.0	49	15
4-16-73	4.9	1	45	25	9.0	4.8	.00	.00	.00	.002	.00	.07	22	13.0	51	26
6-18-73	4.5	0	40	2	7.0	6.8	.00	.00	.00	.000	.15	.02	25	7.0	22	20
Well 12																
11-1-71	5.5	5	26	---	10.0	8.2	.18	.05	---	.003	.00	.68	24	16.0	561	---
1-3-72	---	---	---	97	10.0	6.3	---	---	---	.003	.15	.25	23	2.1	102	5
3-6-72	5.7	6	28	---	10.0	9.6	.20	.04	---	.001	.19	.40	21	12.0	---	---
5-8-72	5.3	---	---	73	---	5.7	.00	---	---	---	.00	.25	20	8.2	76	3
6-26-72	5.8	6	24	16	---	5.3	.03	.01	.10	.001	.00	.13	23	24.0	43	27
9-18-72	4.7	2	57	5	7.0	4.5	.01	.00	.02	.011	.00	.00	25	2.5	15	10
12-18-72	5.4	4	36	33	10.0	8.7	.04	.00	.07	.001	.00	.00	23	10.0	46	13
4-16-73	5.0	3	30	34	8.0	4.6	.02	.00	.00	.002	.00	.03	22	3.0	36	2
6-18-73	4.5	0	28	15	10.0	4.0	.01	.02	.00	.002	.15	.02	25	3.0	25	10

TABLE 17 (CONTINUED)

GROUND WATER
PHYSICAL AND CHEMICAL DATA
NOVEMBER 1970 THROUGH JUNE 1973

Date	pH Lab	Alk as $CaCO_3$ mg/l	Acid as $CaCO_3$ mg/l	TDS mg/l	Cl- mg/l	Hardness as $CaCO_3$ mg/l	Phosphate Total mg P/l	Phosphate Ortho mg P/l	Nitrogen NO_3 mg N/l	Nitrogen NO_2 mg N/l	Nitrogen NH_3 mg N/l	Nitrogen ORG mg N/l	Temp C	Turb JTU	Solids Total mg/l	Solids Susp mg/l
Well 13																
5-17-71	6.7	55	71	213	15.0	9.8	.11	.01	—	.004	.28	.70	22	22.0	372	159
7-21-71	5.9	12	37	180	4.0	—	.01	.00	.00	.004	.00	.03	23	53.0	211	31
8-10-71	7.2	94	50	128	11.0	—	.02	.02	—	.006	.79	.53	23	6.3	171	43
9-20-71	7.3	6	25	55	—	13.0	—	—	—	—	.72	.42	23	—	63	8
10-19-71	5.7	4	98	48	14.0	7.5	.20	.00	.03	.004	.01	.75	24	17.0	88	40
12-7-71	—	—	—	43	14.0	9.8	.16	.02	—	.005	.28	4.18	22	8.8	87	44
2-21-72	—	—	—	—	12.0	7.5	.41	.00	—	.003	.22	.83	22	11.0	—	—
4-17-72	5.0	1	64	—	—	10.9	—	—	.03	.007	.00	.19	21	8.5	—	—
6-20-72	—	—	—	35	—	9.5	.00	.00	.23	.003	.00	.17	22	6.9	50	15
9-27-72	5.0	5	117	24	14.0	8.6	.02	.02	.06	.002	.00	.03	24	5.0	33	9
10-16-72	5.2	6	76	22	11.0	10.1	.04	.02	.05	.00[illegible]	.00	.00	23	4.0	23	1
Well 37																
12-18-72	5.6	25	87	46	12.0	28.8	.08	.08	.12	.002	.00	.17	23	80.0	113	67
Well 38																
12-18-72	5.0	13	83	182	16.0	13.5	.08	.04	.08	.001	.00	.35	23	74.0	382	200
Well 14																
1-8-73	5.3	8	64	25	7.0	—	.16	.02	.13	.000	.00	.12	23	—	66	41
2-19-73	5.3	10	56	28	9.0	12.5	.04	.02	.17	.000	.43	.00	22	15.0	46	18
Well 16																
12-15-70	—	—	—	—	—	—	.06	.03	.25	.007	.00	.78	20	—	—	—
1-4-71	5.8	7	127	—	11.0	11.1	.22	.00	.01	.003	.00	4.66	22	—	—	—
1-6-71	5.5	6	132	—	12.0	6.7	.01	.00	.02	.004	.00	.30	22	—	—	—
1-11-71	5.5	4	150	—	10.0	6.6	.10	.00	.01	.007	.00	.19	22	—	—	—
1-18-71	5.7	10	311	38	8.0	6.2	.01	.00	.05	.010	.00	.47	22	23.0	93	55
1-25-71	6.1	11	148	49	11.0	5.4	.07	.00	.01	.002	.00	.57	22	9.0	76	27

TABLE 17 (CONTINUED)

GROUND WATER
PHYSICAL AND CHEMICAL DATA
NOVEMBER 1970 THROUGH JUNE 1973

Date	pH Lab	Alk as $CaCO_3$ mg/l	Acid as $CaCO_3$ mg/l	TDS mg/l	Cl- mg/l	Hardness as $CaCO_3$ mg/l	Phosphate Total mg P/l	Phosphate Ortho mg P/l	Nitrogen NO_3 mg N/l	Nitrogen NO_2 mg N/l	Nitrogen NH_3 mg N/l	Nitrogen ORG mg N/l	Temp C	Turb JTU	Solids Total mg/l	Solids Susp mg/l
Well 16 (Cont.)																
2-16-71	5.9	9	23	---	10.0	5.2	.00	.00	.02	.000	.00	.08	22	---	32	---
2-22-71	5.4	13	92	29	10.0	---	.10	.01	---	.004	.00	.00	22	---	33	4
3-1-71	5.8	8	51	55	12.0	---	.04	.02	.03	.005	.00	.22	23	4.5	68	13
4-5-71	4.5	---	160	163	7.0	---	.01	.00	.02	.004	.00	.35	22	20.0	169	6
5-10-71	5.2	11	133	112	6.0	4.9	.03	.00	.02	.001	.00	.00	22	---	270	158
7-21-71	6.3	15	36	21	2.0	2.9	.30	.03	.11	.013	.00	.96	23	45.0	65	44
8-26-71	6.3	13	25	79	6.0	2.7	---	.05	.34	.007	.12	---	23	30.0	123	44
9-8-71	5.7	8	132	72	4.0	3.5	.15	.02	---	.006	.00	.31	24	34.0	118	46
10-4-71	7.0	9	38	50	6.0	10.3	.07	.02	---	---	.00	.29	23	11.0	71	21
11-1-71	5.5	3	35	16	1.0	10.3	.09	.01	---	.004	.14	.91	24	13.0	45	29
1-18-72	---	---	---	64	---	10.1	---	.01	---	.000	.82	.80	21	9.8	71	7
3-20-72	6.4	7	12	8	6.0	5.9	.10	.02	.07	.006	.20	.65	21	4.5	11	3
5-22-72	5.4	---	---	---	10.0	6.0	---	---	---	---	.00	.33	22	4.2	---	---
7-17-72	6.5	44	41	45	24.0	7.1	.01	.04	.12	.003	.17	.27	22	8.8	49	4
9-18-72	5.1	5	54	17	5.0	8.7	.02	.00	.05	.005	.00	---	25	10.0	35	18
2-5-73	5.0	5	35	47	11.0	8.6	.06	.04	.20	.004	.57	.22	23	2.2	48	1
Well 17																
11-1-71	5.5	3	30	42	3.0	4.3	.02	.02	---	.005	.26	1.01	24	7.9	42	0
1-18-72	---	---	--	71	---	12.5	---	.05	---	.003	.78	.75	21	11.0	85	14
3-20-72	6.4	2	13	1	10.0	5.4	.03	.00	.16	---	.12	.55	21	4.8	22	21
5-22-72	5.4	---	---	---	10.0	5.6	---	---	---	---	.00	.03	22	2.6	---	---
7-17-72	6.5	38	29	33	12.0	4.1	.02	.02	.12	.002	.05	.28	22	3.6	39	6
9-18-72	4.9	2	42	9	3.0	4.3	.01	.00	.04	.008	.10	.03	25	2.5	10	1
2-5-73	4.7	3	36	42	11.0	6.5	.04	.04	.09	.000	.00	---	23	0.4	43	1
Well 18																
11-1-71	5.6	3	30	5	3.0	6.3	.07	.05	---	.004	.52	1.98	24	9.5	39	34
1-18-72	---	---	---	79	---	7.9	.11	.04	---	.003	.70	.79	21	45.0	115	36

TABLE 17 (CONTINUED)

GROUND WATER
PHYSICAL AND CHEMICAL DATA
NOVEMBER 1970 THROUGH JUNE 1973

Date	pH Lab	Alk as $CaCO_3$ mg/l	Acid as $CaCO_3$ mg/l	TDS mg/l	Cl- mg/l	Hardness as $CaCO_3$ mg/l	Phosphate Total mg P/l	Phosphate Ortho mg P/l	Nitrogen NO_3 mg N/l	Nitrogen NO_2 mg N/l	Nitrogen NH_3 mg N/l	Nitrogen ORG mg N/l	Temp C	Turb JTU	Solids Total mg/l	Solids Susp mg/l
Well 18 (Cont.)																
3-20-72	5.6	1	19	86	2.0	5.8	.11	.07	.05	.109	.00	.90	21	7.5	119	33
5-22-72	5.2	---	---	---	5.0	3.7	---	---	---	---	.50	.03	22	3.6	—	—
7-17-72	6.4	34	36	59	12.0	6.2	.01	.12	.15	.002	.09	.28	22	7.6	98	39
9-18-72	4.7	1	80	84	4.0	9.2	.01	.00	.06	.003	.07	.03	25	7.5	115	31
2-5-73	4.8	3	37	52	5.0	13.7	.02	.02	.12	.000	.13	.13	23	5.3	58	6
Well 19																
7-21-71	6.6	4	40	3	5.0	6.2	.09	.00	.02	.003	.00	.18	23	12.0	81	8
8-10-71	6.1	15	82	49	12.0	---	.10	.00	---	.006	.28	.00	23	3.4	62	13
9-20-71	7.0	6	30	20	---	8.3	---	---	---	---	.00	.12	23	---	20	0
10-19-71	6.4	10	73	83	11.0	6.0	.05	.00	.03	.004	---	---	24	9.5	106	23
12-7-71	---	---	---	35	13.0	8.1	.17	.00	---	.004	.44	.53	23	4.2	36	1
2-21-72	---	---	---	---	---	6.7	---	.00	---	.001	.38	.68	22	7.5	—	—
4-17-72	4.8	0	83	---	---	8.7	---	.00	.00	.000	.00	.00	21	2.6	—	—
6-29-72	---	---	---	47	---	10.8	.33	.10	.27	.000	.00	.12	22	3.1	49	2
9-27-72	4.7	2	189	23	12.0	7.2	.03	.01	.07	.002	.00	.13	24	0.0	29	6
10-16-72	5.0	6	98	42	10.0	11.3	.06	.06	.03	.002	.00	.00	24	4.5	42	0
Well 20																
12-15-70	---	---	---	---	---	---	.03	.01	.72	.004	.06	.06	20	—	—	—
1-4-71	6.6	21	149	---	14.0	28.3	.17	.01	---	.004	.00	4.56	22	—	—	—
1-6-71	6.1	32	82	---	15.0	28.2	.03	.01	.01	.003	.00	.31	22	—	—	—
1-11-71	6.3	16	161	---	14.0	17.6	.04	.00	---	.004	.00	1.05	22	—	—	—
1-18-71	7.2	26	26	66	12.0	17.7	.13	.00	.03	.007	.00	.29	22	16.0	101	35
1-25-71	6.9	31	122	84	13.0	19.4	.01	.00	.01	.002	.00	.38	22	15.0	109	25
2-16-71	6.3	20	30	7	13.0	18.5	.04	.02	.00	.000	.00	.00	22	---	42	35
2-22-71	6.1	24	61	34	12.0	16.7	.03	.01	---	.004	.36	.43	22	---	55	21
3-1-71	6.1	19	97	26	13.0	---	.12	.01	.00	.005	.00	.67	23	5.7	34	8
4-5-71	5.5	16	99	182	9.0	---	.01	.00	.05	.005	.03	.33	22	20.0	187	5
5-10-71	5.5	21	136	---	12.0	---	.06	.00	.00	.001	.23	1.65	22	—	—	—

TABLE 17 (CONTINUED)

GROUND WATER
PHYSICAL AND CHEMICAL DATA
NOVEMBER 1970 THROUGH JUNE 1973

Date	pH Lab	Alk as $CaCO_3$ mg/l	Acid as $CaCO_3$ mg/l	TDS mg/l	Cl- mg/l	Hardness as $CaCO_3$ mg/l	Phosphate Total mg P/l	Phosphate Ortho mg P/l	Nitrogen NO_3 mg N/l	Nitrogen NO_2 mg N/l	Nitrogen NH_3 mg N/l	Nitrogen ORG mg N/l	Temp C	Turb JTU	Solids Total mg/l	Solids Susp mg/l
Well 20 (Cont.)																
7-21-71	6.5	21	34	---	4.0	19.5	.05	.00	---	.003	.00	.00	23	2.1	—	—
8-26-71	6.3	15	58	78	14.0	15.9	---	.02	.02	.003	---	---	23	2.1	84	6
9-8-71	5.8	14	210	64	29.0	16.5	.11	.01	---	.005	.07	.02	23	3.6	74	10
10-4-71	7.0	9	111	45	12.0	14.9	.04	.00	---	---	.00	.19	23	7.5	50	5
11-15-71	6.5	16	14	---	11.0	---	.13	.06	---	.007	---	---	25	—	101	—
1-18-72	—	---	---	72	---	16.6	.03	.00	---	.005	.49	.59	21	2.9	76	4
3-20-72	7.0	8	7	14	10.0	11.2	.12	.04	---	.039	.00	.65	21	4.2	17	3
5-22-72	6.5	---	---	2	14.0	12.9	---	---	.07	---	.00	.03	22	4.9	10	8
7-17-72	6.4	45	55	68	23.0	14.4	.02	.01	.10	.002	.09	.27	22	3.6	71	3
9-18-72	5.0	8	75	23	8.0	7.5	.01	.00	.04	.008	.10	.08	25	5.0	30	7
Well 21																
11-15-71	6.9	18	33	89	12.0	15.1	.09	.00	---	.004	.12	.75	25	6.9	121	32
1-18-72	---	---	---	82	---	29.5	---	.00	---	.001	.76	.71	21	11.0	104	22
3-20-72	6.7	0	9	32	9.0	6.4	.02	.00	.12	.000	.00	.85	21	7.5	54	22
5-22-72	5.4	---	---	---	7.6	3.6	.26	---	.04	.004	.00	.20	22	5.7	—	—
7-17-72	6.2	32	47	58	28.0	4.1	.01	.00	.14	.000	.06	.27	22	3.6	64	6
9-18-72	4.7	2	99	20	12.0	8.0	.01	.00	.24	.011	.00	.13	25	5.0	30	10
Well 22																
11-15-71	7.2	20	42	124	11.0	17.8	.11	.07	---	.005	.13	.38	25	6.3	171	47
1-18-72	—	---	---	138	---	12.5	.76	.02	---	.011	.75	.95	21	50.0	196	58
3-20-72	6.6	1	11	60	8.0	8.7	.07	.01	.03	.033	.00	.90	21	9.1	100	40
5-22-72	5.4	---	---	---	11.0	8.4	.29	---	---	---	.00	.12	22	11.0	—	---
7-17-72	6.2	26	55	78	54.0	4.1	.02	.01	.13	.003	.13	.29	22	8.5	90	12
9-18-72	4.6	2	97	0	8.0	4.3	.01	.00	.05	.013	.07	.32	25	35.0	100	100
Well 23																
5-17-71	6.9	49	83	21	9.0	14.9	.00	.01	.00	.004	.15	.30	22	32.0	85	64
7-21-71	6.3	5	52	79	2.0	—	.00	.00	.00	.003	.00	.00	23	12.0	88	9

TABLE 17 (CONTINUED)

GROUND WATER
PHYSICAL AND CHEMICAL DATA
NOVEMBER 1970 THROUGH JUNE 1973

Date	pH Lab	Alk as $CaCO_3$ mg/l	Acid as $CaCO_3$ mg/l	TDS mg/l	Cl- mg/l	Hardness as $CaCO_3$ mg/l	Phosphate Total mg P/l	Phosphate Ortho mg P/l	Nitrogen NO_3 mg N/l	Nitrogen NO_2 mg N/l	Nitrogen NH_3 mg N/l	Nitrogen ORG mg N/l	Temp C	Turb JTU	Solids Total mg/l	Solids Susp mg/l
Well 23 (Cont.)																
8-10-71	5.5	15	83	43	12.0	—	---	.02	—	.006	.26	.00	23	9.5	69	16
9-20-71	7.3	8	27	26	---	15.5	—	---	—	—	.00	.84	23	—	26	0
10-19-71	6.4	13	203	7	13.0	10.5	.06	.01	.02	.003	.49	.57	24	—	7	0
12-7-71	---	---	---	40	7.0	6.2	.02	.01	—	.004	—	---	23	2.3	40	0
2-21-71	---	---	---	---	11.0	6.0	.04	.00	—	.001	.39	.68	22	5.7	—	—
4-17-71	5.0	1	72	---	13.0	8.0	---	.01	.01	.003	.00	.00	21	4.2	—	---
6-20-72	—	—	—	17	—	7.3	.00	.00	.23	.002	.00	.15	22	4.2	27	10
9-27-72	7.9	6	145	0	9.0	8.9	.02	.01	.08	.003	.00	.03	24	2.5	17	0
10-16-72	5.1	7	76	27	7.0	10.3	.04	.04	.03	.000	.00	.00	23	2.5	27	0
2-20-73	5.3	6	54	---	---	9.7	.01	.02	.32	.002	.00	.02	22	.4	15	1
Well 24																
5-17-71	6.0	32	98	---	14.0	19.5	---	---	—	.005	.54	.71	22	25.0	—	---
7-21-71	5.9	16	49	23	3.0	18.0	---	---	—	.003	.00	1.20	23	37.0	59	36
8-10-71	6.2	21	72	125	10.0	---	.03	.02	—	.006	.15	.00	23	70.0	145	20
9-20-71	7.5	12	36	41	16.0	17.4	—	---	---	—	.00	.48	23	---	49	8
10-19-71	7.2	22	130	23	13.0	15.5	.05	.02	.03	.012	.24	.28	24	15.0	73	50
11-15-71	6.4	6	79	---	11.0	15.4	.05	.01	---	.005	.67	.82	25	12.0	—	—
12-20-71	---	---	---	63	13.0	26.3	—	---	---	.003	.00	.66	24	6.9	91	28
2-7-72	---	---	---	109	22.0	16.8	.02	.01	—	.003	.00	.25	21	9.8	162	53
4-3-72	6.6	11	24	---	---	16.6	—	---	.05	.003	.40	.70	21	6.0	103	—
6-5-72	5.8	---	---	57	20.0	16.0	.29	---	---	.003	.00	.10	21	5.1	71	14
8-7-72	6.3	21	95	2	13.0	26.8	.01	.01	.03	.001	.68	.00	22	5.1	44	42
10-2-72	5.4	9	78	9	22.0	17.5	.18	.02	.05	.000	.00	.07	24	5.0	34	25
11-5-72	5.3	10	72	80	20.0	21.8	.02	.02	.16	.000	.00	.00	23	13.0	80	0
1-8-73	5.2	4	46	68	18.0	---	.08	.04	.18	.002	.02	.25	23	8.5	79	11
2-19-73	5.5	8	31	---	20.0	18.1	.02	.00	.12	.000	.37	.10	22	5.7	66	3
4-3-73	5.1	9	55	9	20.0	19.6	.02	.00	.01	.000	.00	.13	21	3.0	26	12
6-4-73	5.2	13	57	78	20.0	23.3	.03	.02	.03	.002	.03	.13	24	5.0	30	2

TABLE 17 (CONTINUED)

GROUND WATER
PHYSICAL AND CHEMICAL DATA
NOVEMBER 1970 THROUGH JUNE 1973

Date	pH Lab	Alk as $CaCO_3$ mg/l	Acid as $CaCO_3$ mg/l	TDS mg/l	Cl- mg/l	Hardness as $CaCO_3$ mg/l	Phosphate Total mg P/l	Phosphate Ortho mg P/l	Nitrogen NO_3 mg N/l	Nitrogen NO_2 mg N/l	Nitrogen NH_3 mg N/l	Nitrogen ORG mg N/l	Temp C	Turb JTU	Solids Total mg/l	Solids Susp mg/l
Well 25																
11-15-71	7.5	14	31	35	12.0	19.3	.07	.01	—	.011	.18	1.96	25	55.0	219	184
12-20-71	—	—	—	59	16.0	168.0	—	—	—	.018	.00	1.35	24	12.0	467	408
2-7-72	—	—	—	186	14.0	34.9	—	—	—	.011	.80	1.38	21	—	713	527
4-3-72	6.4	11	23	49	—	18.9	—	.01	.05	.000	.00	.85	21	3.2	171	122
6-5-72	5.6	—	—	30	21.0	45.0	.43	—	—	—	.04	.23	21	37.0	265	235
8-7-72	6.1	10	69	74	18.0	27.0	—	.02	.05	.004	.05	.66	22	32.0	150	76
10-2-72	5.4	7	52	117	21.0	15.4	.08	.03	.13	.001	.03	.07	24	70.0	231	214
11-5-72	5.2	8	63	164	19.0	20.8	.02	.02	.20	.000	.00	.07	23	104.0	188	24
1-8-73	5.1	2	30	49	19.0	—	.10	.06	.17	.000	.00	—	23	130.0	179	130
2-19-73	5.2	4	7	—	22.0	16.6	.10	.04	.26	.000	.05	.38	22	12.0	62	16
4-3-73	5.2	5	21	—	18.0	9.7	.02	.00	.00	.000	.00	.37	21	8.0	12	—
6-4-73	5.2	9	37	58	18.0	11.6	.01	.01	.00	.002	.03	.07	24	5.0	63	5
Well 26																
11-15-71	6.8	16	31	—	12.0	16.9	.02	.00	—	.008	.19	.52	25	50.0	—	—
12-20-72	—	—	—	5	14.0	16.0	—	—	—	—	.17	.21	24	3.4	79	74
2-7-72	—	—	—	65	20.0	7.5	.00	.00	—	.001	.39	.12	21	11.0	104	39
4-3-72	5.7	2	21	28	27.0	10.4	—	.00	.01	.003	.00	.30	21	8.1	45	17
6-5-72	5.2	—	—	28	21.0	6.7	.01	—	—	—	.00	.10	21	7.6	58	30
8-8-72	5.8	15	39	61	19.0	14.4	.00	.02	.03	.003	.00	.40	22	3.7	109	48
10-2-72	5.1	3	39	12	20.0	7.5	—	.02	.13	.000	.07	.03	24	2.5	23	11
11-5-72	4.9	4	41	50	20.0	9.5	.00	.00	.18	.001	.00	.00	23	9.0	50	0
1-8-73	4.8	1	28	38	18.0	—	—	—	.15	.000	.00	.15	23	11.0	60	22
2-19-73	5.0	2	13	—	21.0	8.3	.00	.00	.16	.000	.33	.08	22	1.0	33	1
4-3-73	4.5	0	32	0	18.0	5.6	.00	.00	.01	.000	.00	.00	21	2.0	1	1
6-4-73	4.9	6	36	39	18.0	5.6	.01	.01	.03	.001	.00	.00	24	7.0	40	1
Well 31																
12-4-72	5.3	9	62	14	7.0	11.3	.16	.10	.04	.000	.00	.28	23	12.0	26	12

TABLE 17 (CONTINUED)

GROUND WATER
PHYSICAL AND CHEMICAL DATA
NOVEMBER 1970 THROUGH JUNE 1973

Date	pH Lab	Alk as $CaCO_3$ mg/l	Acid as $CaCO_3$ mg/l	TDS mg/l	Cl- mg/l	Hardness as $CaCO_3$ mg/l	Phosphate Total mg P/l	Phosphate Ortho mg P/l	Nitrogen NO_3	Nitrogen NO_2	Nitrogen NH_3 mg N/l	Nitrogen ORG	Temp C	Turb JTU	Solids Total mg/l	Solids Susp mg/l
Well 32																
12-4-72	5.3	9	46	15	9.0	12.5	.12	.02	.05	.001	.00	.12	23	10.5	23	9
Well 35																
7-24-72	6.3	80	96	155	9.0	81.4	.48	.21	.02	.005	.00	.11	22	39.0	255	100
11-28-72	---	---	---	45	11.0	14.3	.18	.18	.26	.003	.00	.00	23	---	63	18
1-22-73	4.8	8	132	59	11.0	13.2	.18	.04	.18	.000	.05	.00	22	7.5	74	15
3-19-73	5.3	11	---	48	8.0	48.6	.62	.34	---	---	3.33	.23	--	80.0	122	74
5-21-73	4.8	8	67	40	11.0	18.2	.56	.28	.03	.001	.00	.40	23	38.0	93	53
Well 36																
7-24-72	5.3	47	201	215	55.0	43.3	.01	.00	.11	.002	.00	.61	22	7.9	224	9
9-27-72	4.3	0	1240	466	71.0	125.3	.06	.03	.21	.002	3.87	1.66	25	13.0	468	2
10-16-72	4.4	0	660	332	38.0	67.0	.08	.04	.13	.001	1.37	1.37	24	16.0	332	0
11-28-72	---	---	---	36	46.0	205.4	.22	.22	.41	.003	.63	7.75	23	---	48	12
1-22-73	4.3	0	1050	679	89.0	173.8	.08	.04	.23	.000	1.25	7.10	22	18.0	686	7
3-19-73	4.4	0	---	1050	103.0	335.3	.08	.00	---	---	.00	4.00	---	15.0	1052	2
5-21-73	4.4	0	970	778	120.0	334.5	.06	.04	.18	.005	6.12	1.72	23	34.0	784	6
Well A																
10-10-72	7.7	176	2	---	7.0	171.5	.08	.08	.05	.001	.12	.17	23	21.0	---	2
2-5-73	7.6	168	9	253	4.0	170.4	.08	.08	.06	.002	.23	.20	23	22.0	263	10
6-25-73	7.1	211	32	274	2.0	186.7	.15	.01	.00	.001	.07	.00	23	21.0	283	9
Well B																
2-5-73	7.9	109	3	152	15.0	119.0	.06	.06	.11	.000	.13	---	23	4.3	155	3
6-25-73	8.4	32	0	121	32.0	61.3	.01	.01	.00	.001	.07	.00	23	5.0	127	6
Well C																
2-5-73	7.8	173	6	231	4.0	176.6	.02	.02	.07	.002	.60	.20	23	11.0	232	1
6-25-73	8.3	41	0	176	46.0	83.4	.01	.01	.00	.001	.13	.00	23	5.0	182	6

TABLE 17 (CONTINUED)

GROUND WATER
PHYSICAL AND CHEMICAL DATA
NOVEMBER 1970 THROUGH JUNE 1973

Date	pH Lab	Alk as $CaCO_3$ mg/l	Acid as $CaCO_3$ mg/l	TDS mg/l	Cl- mg/l	Hardness as $CaCO_3$ mg/l	Phosphate Total mg P/l	Phosphate Ortho mg P/l	Nitrogen NO_3 mg N/l	Nitrogen NO_2 mg N/l	Nitrogen NH_3 mg N/l	Nitrogen ORG mg N/l	Temp C	Turb JTU	Solids Total mg/l	Solids Susp mg/l
Well D																
2-5-73	9.0	3	---	127	35.0	55.9	.02	.02	.06	.001	.17	.17	23	8.3	131	4
6-25-73	8.6	47	0	83	18.0	50.0	.01	.00	.00	.001	.00	.00	23	4.0	88	5

TABLE 18

GROUND WATER
ADDITIONAL PHYSICAL AND CHEMICAL DATA
JUNE 1972 THROUGH JUNE 1973

Milligrams per Liter

Date	Conductivity (micromhos/cm)	SO_4	COD	pH (field)
Well 1				
4-3-73	59	---	11.8	---
Well 2				
12-4-72	59	143.0	110.2	---
Well 33				
12-4-72	74	66.1	76.8	---
Well 34				
12-4-72	69	135.0	78.4	---
Well 3				
4-5-71	133	---	---	---
12-20-71	520	---	---	---
1-18-72	---	---	1370.0	---
2-7-72	679	---	---	---
4-3-72	1435	4.2	2970.0	---
6-5-72	1400	15.7	4040.0	---
8-7-72	1392	9.1	6000.0	---
10-16-72	800	3.6	1948.0	---
11-5-72	950	6.3	2340.0	---
1-22-73	920	---	2440.0	---
3-19-73	---	---	1910.4	---
5-8-73	656	.1	698.0	---
Well 29				
1-22-73	805	---	---	---
3-19-73	---	---	1518.0	---
5-8-73	1312	3.3	931.0	---

Date	Conductivity (micromhos/cm)	SO_4	COD	pH (field)
Well 4				
12-20-71	74	---	---	---
2-7-72	69	---	---	---
4-3-72	98	3.7	20.0	---
6-5-72	80	5.1	38.0	---
8-7-72	78	8.0	53.0	---
10-2-72	60	3.6	45.3	---
11-5-72	57	3.5	65.7	---
Well 5				
4-5-71	56	---	---	---
1-3-72	46	---	---	---
3-6-72	---	---	3.8	4.8
5-8-72	84	3.2	6.1	---
6-26-72	121	13.5	11.7	---
9-18-72	70	2.8	28.2	---
11-28-72	160	2.5	208.6	---
3-19-73	---	---	814.3	---
5-21-73	441	---	815.0	---
Well 27				
1-3-72	63	---	---	---
3-6-72	---	4.3	16.0	5.0
5-8-72	70	7.3	18.0	---
6-26-72	93	12.7	18.5	6.0
9-18-72	70	3.6	48.4	---
11-28-72	130	3.5	97.3	---
3-19-73	---	---	79.4	---
5-21-73	160	---	188.1	---

TABLE 18 (CONTINUED)

GROUND WATER
ADDITIONAL PHYSICAL AND CHEMICAL DATA
JUNE 1972 THROUGH JUNE 1973

Milligrams per Liter

Date	Conductivity (micromhos/cm)	SO_4	COD	pH (field)
Well 28				
1-3-72	63	—	—	—
3-6-72	—	11.5	25.0	4.9
5-8-72	88	16.2	8.2	—
6-26-72	102	17.8	24.2	6.3
9-18-72	44	32.4	59.8	—
11-28-72	60	15.9	31.0	—
3-19-73	—	—	65.6	—
5-21-73	53	—	62.6	—
Well 6				
4-5-71	33	—	—	—
8-7-72	139	4.8	36.2	—
10-16-72	47	2.4	7.8	—
11-28-72	40	2.3	20.2	—
1-22-73	52	—	32.5	—
3-19-73	—	—	9.8	—
5-7-73	—	1.3	36.4	—
Well 7				
12-4-72	93	13.0	22.1	—
4-16-73	51	—	36.2	—
6-18-73	55	—	21.9	—
Well 15				
12-4-72	127	17.2	58.2	—
4-16-73	62	—	35.5	—
6-18-73	80	—	38.4	—

Date	Conductivity (micromhos/cm)	SO_4	COD	pH (field)
Well 8				
12-18-72	55	3.3	5.8	—
Well 9				
2-21-72	124	—	—	—
4-17-72	153	14.8	44.0	—
6-20-72	121	20.4	55.7	—
9-27-72	90	6.2	50.4	—
10-16-72	79	3.2	52.0	—
11-5-72	86	15.0	68.0	—
Well 10				
4-5-71	33	—	—	—
3-6-72	—	.0	1.6	4.9
5-8-72	47	3.4	1.6	—
6-26-72	47	3.6	—	5.0
9-18-72	35	2.0	8.7	—
12-18-72	35	2.8	—	—
4-16-73	62	—	2.8	—
6-18-73	31	—	54.4	—
Well 11				
1-3-72	39	—	—	—
3-6-72	—	3.0	5.4	5.0
5-8-72	51	4.6	0	—
6-26-72	37	3.8	—	4.0
9-18-72	39	2.2	73.1	—
12-18-72	35	2.9	1.2	—

TABLE 18 (CONTINUED)

GROUND WATER
ADDITIONAL PHYSICAL AND CHEMICAL DATA
JUNE 1972 THROUGH JUNE 1973

Milligrams per Liter

Date	Conductivity (micromhos/cm)	SO_4	COD	pH (field)
Well 11 (Cont.)				
4-16-73	36	—	3.2	—
6-18-73	31	—	12.5	—
Well 12				
1-3-72	45	—	—	—
3-6-72	—	4.5	3.8	5.0
5-8-72	49	2.5	0	—
6-26-72	47	13.2	—	5.2
9-18-72	39	2.5	5.2	—
12-18-72	40	3.8	—	—
4-16-73	36	—	2.8	—
6-18-73	39	—	5.1	—
Well 13				
2-21-72	67	—	—	—
4-17-72	9	3.0	4.0	—
6-20-72	65	12.6	10.6	—
9-27-72	70	2.3	18.5	—
10-16-72	70	2.0	16.1	—
Well 37				
12-18-72	100	39.8	15.5	—
Well 38				
12-18-72	65	28.8	34.1	—
Well 14				
1-8-73	57	—	7.0	—
2-19-73	—	—	18.7	—

Date	Conductivity (micromhos/cm)	SO_4	COD	pH (field)
Well 16				
4-5-71	56	—	—	—
1-18-72	52	—	—	—
3-20-72	—	2.6	18.0	—
5-22-72	55	5.8	19.0	—
7-17-72	52	3.6	21.4	—
9-18-72	39	5.5	22.6	—
2-5-73	53	—	13.1	—
Well 17				
1-18-72	47	—	—	—
3-20-72	—	3.0	19.0	—
5-22-72	50	—	23.0	—
7-17-72	33	2.5	18.8	—
9-18-72	22	2.5	39.7	—
2-5-73	—	—	12.8	—
Well 18				
1-18-72	27	—	—	—
3-20-72	—	4.6	9.9	—
5-22-72	30	9.1	16.0	—
7-17-72	37	4.6	30.5	—
9-18-72	44	5.0	18.8	—
2-5-73	—	—	10.2	—
Well 19				
2-21-72	57	—	—	—
4-17-72	90	2.6	3.2	—
6-20-72	65	8.3	29.4	—
9-27-72	80	2.1	15.4	—
10-16-72	70	2.0	20.0	—

TABLE 18 (CONTINUED)

GROUND WATER
ADDITIONAL PHYSICAL AND CHEMICAL DATA
JUNE 1972 THROUGH JUNE 1973

Milligrams per Liter

Date	Conductivity (micromhos/cm)	SO_4	COD	pH (field)
Well 20				
4-5-71	100	—	—	—
1-18-72	68	—	7.3	—
3-20-72	—	2.7	14.0	—
5-22-72	70	4.0	15.0	—
7-17-72	65	—	20.3	—
9-18-72	52	2.2	28.5	—
Well 21				
1-18-72	54	—	—	—
3-20-72	—	2.6	16.0	—
5-22-72	55	5.5	11.0	—
7-17-72	61	—	42.1	—
9-18-72	61	2.3	39.3	—
Well 22				
1-18-72	56	—	—	—
3-20-72	—	5.6	23.0	—
5-22-72	53	7.6	18.0	—
7-17-72	51	3.3	38.0	—
9-18-72	44	10.0	28.2	—
Well 23				
2-21-72	38	—	—	—
4-17-72	81	2.5	5.7	—
6-20-72	47	10.0	—	—
9-27-72	50	2.0	6.7	—
10-16-72	51	2.0	—	—
2-19-73	—	12.0	23.3	—

Date	Conductivity (micromhos/cm)	SO_4	COD	pH (field)
Well 24				
12-20-71	80	—	—	—
2-7-72	81	—	—	—
4-3-72	92	3.3	16.0	—
5-5-72	100	3.8	18.0	—
6-5-72	100	3.8	17.7	—
8-7-72	96	2.5	36.4	—
10-2-72	100	2.1	15.7	—
11-5-72	95	3.0	31.1	—
1-8-73	114	—	14.3	—
2-19-73	—	—	13.8	—
4-3-73	108	—	27.4	—
6-4-73	93	5.3	3.9	—
Well 25				
12-20-71	102	—	—	—
2-7-72	92	—	—	—
4-3-72	103	13.3	18.0	—
6-5-72	105	31.5	29.0	—
8-7-72	96	20.0	26.9	—
10-2-72	90	50.1	22.6	—
11-5-72	76	25.7	35.7	—
1-8-73	86	—	17.4	—
2-19-73	—	—	25.6	—
4-3-73	86	—	23.5	—
6-4-73	74	1.8	20.6	—
Well 26				
12-20-71	64	—	—	—
2-7-72	75	—	—	—

TABLE 18 (CONTINUED)

GROUND WATER
ADDITIONAL PHYSICAL AND CHEMICAL DATA
JUNE 1972 THROUGH JUNE 1973

Milligrams per Liter

Date	Conductivity (micromhos/cm)	SO_4	COD	pH (field)
Well 26 (Cont.)				
4-3-72	92	2.0	.4	—
6-5-72	10	3.6	39.0	—
8-7-72	78	2.4	19.6	—
10-2-72	90	2.0	24.4	—
11-5-72	76	2.1	23.1	—
1-8-73	86	—	19.0	—
2-19-73	—	—	22.0	—
4-3-73	77	—	15.7	—
6-4-73	65	1.5	11.6	—
Well 31				
12-4-72	39	3.0	—	—
Well 32				
12-4-72	49	4.0	—	—
Well 35				
7-24-72	196	—	18.8	—
11-28-72	60	3.3	6.2	—
1-22-73	58	—	24.0	—
3-19-73	—	—	1.4	—
5-21-73	114	—	24.4	—
Well 36				
7-24-72	257	—	281.7	—
9-27-72	60	5.2	1723.6	—
10-16-72	456	2.5	936.0	—
11-28-72	640	13.2	1765.0	—
1-22-73	713	—	1965.8	—
3-19-73	—	—	2954.9	—
Well 36 (Cont.)				
3-19-73	—	—	2954.0	—
5-21-73	836	—	1950.0	—
Well A				
10-10-72	360	15.2	6.1	—
2-5-73	367	—	9.2	—
6-25-73	283	—	9.3	—
Well B				
2-5-73	241	—	9.8	—
6-25-73	209	—	8.9	—
Well C				
2-5-73	357	—	23.0	—
6-25-73	251	—	8.9	—
Well D				
2-5-73	158	—	24.6	—
6-25-73	149	—	7.6	—

TABLE 19

GROUND WATER
pH, SULFIDE AND METHYLENE BLUE ACTIVE SUBSTANCES DATA
FEBRUARY 1971 THROUGH MAY 1973

Milligrams per Liter

Date	pH A*	pH B*	Sulfide	MBAS**
Well 2				
12-4-72	4.28	4.31	1.9	---
4-2-73	4.25	4.20	---	17.9
Well 33				
12-4-72	4.07	4.27	.1	23.2
4-2-73	4.12	4.10	.3	11.6
Well 34				
12-4-72	4.10	4.53	.0	25.0
4-2-73	4.35	4.25	.2	18.8
Well 3				
2-18-71	5.40	---	---	---
2-22-71	4.50	---	---	---
3-8-71	5.30	---	---	---
4-5-71	4.50	---	---	---
5-17-71	5.95	---	---	---
7-9-71	5.50	---	---	---
8-10-71	6.00	---	---	---
9-16-71	5.70	---	---	---
10-4-71	5.60	---	---	---
12-7-71	6.07	7.70	---	---
12-20-71	4.90	---	---	---
1-18-72	4.65	4.70	---	---
2-7-72	4.40	4.40	---	---
4-3-72	4.36	4.35	1.1	---
4-17-72	4.45	4.45	1.5	---
6-5-72	4.26	5.53	1.7	---
6-21-72	4.20	4.50	1.3	---
6-27-72	4.75	4.75	3.5	---
6-29-72	4.78	4.76	3.1	---
7-17-72	4.27	4.30	3.3	---

Date	pH A*	pH B*	Sulfide	MBAS**
Well 3 (Cont.)				
8-7-72	4.35	4.30	2.0	71.4
10-16-72	4.40	4.80	.5	---
10-30-72	4.65	4.66	.7	7.1
11-6-72	4.66	4.70	4.4	---
11-28-72	4.70	4.75	2.2	---
1-23-73	4.89	4.89	---	29.5
4-2-73	---	---	.7	---
Well 4				
6-2-71	6.25	---	---	---
7-22-71	5.75	---	---	---
8-25-71	5.70	---	---	---
9-20-71	5.85	---	---	---
10-19-71	5.90	---	---	---
12-7-71	6.05	7.90	---	---
12-20-71	4.90	---	---	---
2-7-72	5.40	7.40	---	---
4-3-72	5.45	7.10	.2	---
6-5-72	5.45	7.30	.9	---
8-7-72	5.39	5.50	.4	44.6
10-2-72	6.67	6.92	.0	---
11-6-72	5.30	6.60	3.0	---
3-5-73	5.95	7.05	2.2	---
Well 5				
2-18-71	4.80	---	---	---
2-22-71	3.20	---	---	---
3-8-71	4.45	---	---	---
4-5-71	3.60	---	---	---
5-17-71	5.20	---	---	---
7-9-71	5.05	---	---	---
8-10-71	5.65	---	---	---

*A, initial pH; B, pH after one hour of vigorous aeration with CO_2 free air.
**Micrograms per liter.

TABLE 19 (CONTINUED)

GROUND WATER
pH, SULFIDE AND METHYLENE BLUE ACTIVE SUBSTANCES DATA
FEBRUARY 1971 THROUGH MAY 1973

Milligrams per Liter

Date	pH A*	pH B*	Sulfide	MBAS**
Well 5 (Cont.)				
9-16-71	6.45	---	---	---
10-4-71	4.85	---	---	---
11-1-71	5.73	---	---	---
1-3-72	4.90	---	---	---
3-6-72	4.74	6.48	.1	---
5-8-72	5.20	7.10	.0	---
6-29-72	5.70	7.18	.0	---
11-28-72	5.13	5.79	305.2	---
1-23-73	4.38	4.42	---	27.7
3-19-73	4.60	4.66	287.5	205.4
5-21-73	4.28	4.80	217.5	26.8
Well 27				
11-1-71	6.45	---	---	---
1-3-72	5.60	---	---	---
3-6-72	5.20	6.80	.8	---
5-8-72	4.95	6.70	.8	---
6-29-72	5.67	7.49	.8	---
11-28-72	5.38	6.85	14.3	---
1-23-73	4.73	4.90	---	28.6
3-19-73	5.00	5.20	22.7	33.9
5-21-73	4.53	5.50	38.8	44.6
Well 28				
11-1-71	5.40	---	---	---
1-3-72	5.30	---	---	---
3-6-72	4.85	5.65	.0	---
5-8-72	4.95	5.85	.2	---
6-29-72	4.58	4.72	.0	---
11-28-72	5.12	5.87	.8	---
1-23-73	4.82	4.99	---	33.9
3-19-73	5.10	5.70	.5	36.6
5-21-73	4.85	5.75	.3	39.3
Well 6				
2-18-71	4.45	---	---	---
2-22-71	3.60	---	---	---

Date	pH A*	pH B*	Sulfide	MBAS**
Well 6 (Cont.)				
3-8-71	4.60	---	---	---
4-5-71	3.70	---	---	---
5-17-71	5.30	---	---	---
7-9-71	5.15	---	---	---
8-10-71	5.90	---	---	---
10-30-72	5.21	6.40	1.5	48.2
11-28-72	5.49	6.34	.1	---
3-19-73	5.58	6.45	.4	32.1
7-9-73	4.45	4.55	27.8	---
Well 7				
12-4-72	5.74	6.12	3.4	1.8
4-2-73	5.35	6.38	.4	11.6
4-16-73	5.40	6.83	.2	15.2
6-18-73	5.15	7.35	.4	48.2
Well 15				
12-4-72	6.25	6.60	---	36.6
4-2-73	5.70	6.65	1.5	18.0
4-16-73	5.75	7.05	.3	18.0
6-18-73	5.60	7.38	.0	58.0
Well 8				
11-6-72	---	---	2.1	---
12-18-72	4.78	5.83	2.0	27.7
Well 9				
6-2-71	7.20	---	---	---
7-22-71	6.80	---	---	---
8-25-71	6.50	---	---	---
9-20-71	6.05	---	---	---
10-19-71	6.10	---	---	---
12-7-71	6.00	7.70	---	---
4-12-72	5.63	7.34	.9	---
6-27-72	5.80	7.56	.4	---
8-30-72	5.50	7.80	.3	49.2
10-30-72	5.50	6.75	.2	34.8

*A, initial pH; B, pH after one hour of vigorous aeration with CO_2 free air.
**Micrograms per liter.

TABLE 19 (CONTINUED)

GROUND WATER
pH, SULFIDE AND METHYLENE BLUE ACTIVE SUBSTANCES DATA
FEBRUARY 1971 THROUGH MAY 1973

Milligrams per Liter

Date	pH A*	pH B*	Sulfide	MBAS**
Well 9 (Cont.)				
11-6-72	5.51	6.92	---	71.4
3-5-73	5.98	7.00	.1	---
Well 10				
2-18-71	4.55	---	---	---
2-22-71	3.30	---	---	---
3-8-71	4.60	---	---	--
4-5-71	3.40	---	---	---
5-17-71	5.20	---	---	---
7-9-71	5.10	---	---	---
8-10-71	5.75	---	---	---
9-16-71	5.25	---	---	---
10-4-71	4.95	---	---	---
11-1-71	5.15	---	---	---
1-1-72	5.03	---	---	---
1-3-72	5.03	---	---	---
3-6-72	4.80	6.50	2.1	---
5-8-72	4.91	6.75	.0	---
6-29-72	4.94	6.70	.4	---
12-18-72	4.93	6.12	2.2	29.5
3-5-73	5.35	7.40	---	---
4-16-73	5.28	7.30	.6	10.7
6-18-73	5.00	7.20	.4	30.4
Well 11				
11-1-71	5.23	---	---	---
1-1-72	5.10	---	---	---
3-6-72	4.95	6.60	.0	---
5-8-72	4.93	6.85	.4	---
6-29-72	4.83	6.47	.0	---
12-18-72	4.92	6.21	2.5	8.9
3-5-73	5.45	7.45	---	---
4-16-73	4.95	6.98	.8	10.7
6-18-73	---	---	.1	28.6

Date	pH A*	pH B*	Sulfide	MBAS**
Well 12				
11-1-71	5.24	---	---	---
1-3-72	5.20	---	---	---
3-6-72	5.05	6.60	.4	---
5-8 72	4.93	6.70	.0	---
6-29-72	5.05	7.02	.0	--
8-30-72	5.15	7.20	.0	17.9
12-18-72	4.99	6.18	1.5	17.9
4-16-73	5.35	6.85	.1	13.4
6-18-73	---	---	.3	35.7
Well 13				
6-2-71	5.60	---	---	---
7-22-71	5.50	---	---	---
8-25-71	5.55	---	---	---
9-20-71	5.20	---	---	---
10-19-71	5.00	---	---	---
12-7-71	5.10	7.20	---	---
2-21-72	4.93	6.65	.0	---
4-17-72	4.36	6.70	.6	---
6-27-72	4.75	6.50	.4	---
8-30-72	4.60	6.67	.0	26.8
10-30-72	5.08	6.42	1.8	18.0
Well 37				
12-18-72	5.58	6.27	.2	---
Well 38				
12-18-72	4.99	6.48	.4	25.9
Well 14				
1-10-73	5.37	6.40	3.4	35.7
2-19-73	5.36	5.89	3.9	---
Well 16				
2-18-71	4.45	---	---	---
2-22-71	3.10	---	---	---

*A, initial pH; B, pH after one hour of vigorous aeration with CO_2 free air.
**Micrograms per liter.

TABLE 19 (CONTINUED)

GROUND WATER
pH, SULFIDE AND METHYLENE BLUE ACTIVE SUBSTANCES DATA
FEBRUARY 1971 THROUGH MAY 1973

Milligrams per Liter

Date	pH A*	pH B*	Sulfide	MBAS**
Well 16 (Cont.)				
3-8-71	4.50	---	---	---
4-5-71	3.40	---	---	---
5-17-71	5.15	---	---	---
7-9-71	5.00	---	---	---
8-10-71	5.80	---	---	---
9-16-71	5.55	---	---	---
10-4-71	5.20	---	---	---
11-1-71	5.30	---	---	---
1-18-72	4.90	6.65	---	---
3-20-72	5.30	7.30	.0	---
5-22-72	4.80	6.97	.0	---
7-17-72	5.14	6.30	.0	58.0
9-18-72	5.30	7.20	.0	---
2-5-73	5.78	7.70	.3	---
Well 17				
11-1-71	5.25	---	---	---
1-18-72	4.87	5.60	---	---
2-21-72	5.85	7.70	.0	---
3-20-72	5.50	6.80	.0	---
5-22-72	4.77	6.65	.0	---
7-17-72	4.97	6.78	.0	15.2
9-18-72	4.85	6.15	.0	---
2-5-73	5.40	7.40	.9	---
Well 18				
11-1-71	5.15	---	---	---
1-18-72	5.38	6.78	---	---
3-20-72	5.60	6.30	.2	---
5-22-72	4.81	6.00	.4	---
7-17-72	4.72	6.34	.0	19.0
9-18-72	5.05	5.95	.0	---
2-5-73	5.30	7.22	.2	---
Well 19				
6-2-71	5.15	---	---	---
7-22-71	5.00	---	---	---
Well 19 (Cont.)				
8-25-71	4.95	---	---	---
9-20-71	4.80	---	---	---
10-19-71	5.00	---	---	---
12-7-71	4.93	7.00	---	---
2-21-72	4.75	6.65	.0	---
4-17-72	4.80	6.55	.5	---
6-27-72	4.95	6.48	.0	---
8-30-72	4.80	6.80	.4	35.7
10-30-72	4.92	5.75	.5	23.2
Well 20				
2-18-71	4.45	---	---	---
2-22-71	3.10	---	---	---
3-8-71	4.90	---	---	---
4-5-71	3.40	---	---	---
5-17-71	5.75	---	---	---
7-9-71	5.70	---	---	---
8-10-71	5.80	---	---	---
9-16-71	5.40	---	---	---
10-11-71	5.30	---	---	---
11-15-71	5.40	---	---	---
1-18-72	5.00	6.84	---	---
3-20-72	5.80	7.25	.4	---
5-22-72	5.32	7.30	.0	---
7-17-72	5.40	7.10	.0	---
8-30-72	5.10	7.08	---	---
9-18-72	5.40	7.21	.0	---
1-23-73	5.31	6.30	---	27.7
Well 21				
11-15-71	5.45	---	---	---
1-18-72	5.20	6.90	---	---
3-20-72	5.55	6.87	.0	---
5-22-72	4.90	6.75	.0	---
7-17-72	4.88	6.92	.0	39.0
9-18-72	4.30	7.45	.0	---
1-23-73	5.09	6.49	---	27.7

*A, initial pH; B, pH after one hour of vigorous aeration with CO_2 free air.
**Micrograms per liter.

TABLE 19 (CONTINUED)

GROUND WATER
pH, SULFIDE AND METHYLENE BLUE ACTIVE SUBSTANCES DATA
FEBRUARY 1971 THROUGH MAY 1973

Milligrams per Liter

Date	pH A*	pH B*	Sulfide	MBAS**
Well 22				
11-15-71	5.35	---	---	---
1-18-72	4.90	---	---	---
3-20-72	5.35	6.76	.5	---
5-22-72	4.85	6.97	1.1	---
7-17-72	4.84	6.72	.0	39.0
9-18-72	5.50	6.80	.1	---
1-23-73	5.02	6.54	---	16.1
2-19-73	---	---	.9	---
Well 23				
6-2-71	5.50	---	---	---
7-22-71	5.70	---	---	---
8-25-71	5.40	---	---	---
9-20-71	5.15	---	---	---
10-19-71	5.20	---	---	---
12-7-71	5.20	7.30	---	---
12-20-71	5.10	---	---	---
2-21-72	5.00	6.95	.0	---
4-17-72	4.96	6.90	.7	---
6-27-72	4.95	6.80	.3	---
7-17-72	---	---	---	39.0
8-30-72	---	---	.2	17.9
10-30-72	4.99	6.30	3.6	18.0
2-19-73	5.02	6.05	---	---
Well 24				
6-2-71	5.72	---	---	---
7-22-71	5.60	---	---	---
8-25-71	5.85	---	---	---
9-20-71	5.30	---	---	---
10-19-71	5.30	---	---	---
11-15-71	5.40	---	---	---
12-20-71	5.45	---	---	---
2-7-72	5.13	6.93	---	---
4-3-72	5.20	6.50	.9	---
6-5-72	5.40	7.35	.0	---
Well 24 (Cont.)				
8-7-72	6.79	6.10	.0	35.7
10-2-72	5.51	6.90	.0	---
11-6-72	5.29	6.62	.1	94.7
1-10-73	5.18	6.29	.5	---
3-5-73	5.85	6.98	.1	---
Well 25				
11-15-71	5.40	---	---	---
27-72	5.40	6.60	---	---
4-3-72	5.15	5.86	.2	---
6-5-72	5.40	6.60	3.1	---
8-7-72	5.20	5.90	.0	18.0
8-14-72	---	---	---	35.7
10-2-72	5.86	6.79	.0	---
11-6-72	5.31	6.50	.0	48.2
1-10-73	5.42	6.39	.2	---
3-5-73	5.72	7.00	.3	---
Well 26				
11-15-71	5.40	---	---	---
12-20-71	4.93	---	---	---
2-7-72	4.90	---	---	---
4-3-72	5.02	6.00	.1	---
6-5-72	4.96	7.45	.4	---
8-7-72	---	---	---	.0
10-2-72	4.92	6.80	.0	---
11-6-72	5.02	6.55	.0	74.1
1-10-73	4.98	6.28	.3	---
3-5-73	4.60	6.99	.6	---
Well 31				
12-4-72	6.60	6.83	.6	2.7
4-2-73	5.55	6.78	.2	16.1

*A, initial pH; B, pH after one hour of vigorous aeration with CO_2 free air.
**Micrograms per liter.

TABLE 19 (CONTINUED)

GROUND WATER
pH, SULFIDE AND METHYLENE BLUE ACTIVE SUBSTANCES DATA
FEBRUARY 1971 THROUGH MAY 1973

Milligrams per Liter

Date	pH A*	pH B*	Sulfide	MBAS**
Well 32				
12-4-72	5.63	6.92	.4	50.0
4-2-72	5.30	6.75	.2	10.7
Well 35				
11-28-72	5.28	6.43	.2	8.0
3-19-73	5.46	6.70	.5	17.6
5-21-73	5.75	6.50	.0	69.6
Well 36				
11-28-72	4.50	4.58	4.4	74.9
3-19-73	4.73	4.83	100.4	81.2
5-21-73	4.72	4.85	233.0	---
Well A				
10-16-72	7.50	8.15	.0	---
2-5-73	7.21	8.46	.7	28.6
Well B				
2-5-73	7.20	8.40	.7	28.6
Well C				
2-5-73	7.49	8.65	.4	28.6
Well D				
2-5-73	7.50	8.55	.4	34.8

*A, initial pH; B, pH after one hour of vigorous aeration with CO_2 free air.
**Micrograms per liter.

TABLE 20

GROUND WATER
METAL DATA
JANUARY 1971 THROUGH JUNE 1973

Milligrams per Liter

Date	Ca	Mg	Fe	Al	Zn	K	Na	Cu
Well 1								
4-3-73	.70	1.00	1.20	.00	.06	.18	6.7	.00
Well 2								
12-4-72	1.20	1.10	1.00	1.00	.07	.10	3.1	.04
Well 33								
12-4-72	1.20	1.45	.50	.60	.09	.05	3.2	.02
Well 34								
12-4-72	1.30	1.15	.50	.70	.08	.05	2.9	.02
Well 3								
1-4-71	12.80	.65	.45	---	.08	.65	8.3	.00
1-6-71	14.20	.60	.70	---	.07	.60	8.2	.00
1-11-71	10.60	.70	.50	---	.05	.70	6.9	.00
1-18-71	12.50	.60	.75	---	.07	.60	8.2	.01
1-25-71	12.40	.65	.65	---	.04	.52	8.1	.01
2-16-71	10.50	.60	.40	---	.03	.52	7.8	.00
2-22-71	---	.55	.40	---	.02	.75	7.5	.00
5-10-71	13.40	.50	.35	---	.01	.30	6.7	.00
7-21-71	3.95	.55	.55	---	.01	.20	6.9	.00
10-4-71	10.80	.60	.40	.00	.01	.20	6.2	.01
12-7-71	54.00	4.75	3.70	1.00	.01	.90	27.0	.02
12-20-71	59.00	6.00	4.60	.75	.00	1.40	36.0	.00
1-18-72	64.00	5.90	4.96	4.25	.00	4.10	52.0	.00
2-7-72	36.00	6.80	5.40	6.60	.00	8.65	73.0	.00
4-3-72	61.00	9.10	6.60	9.00	.04	14.40	92.0	.00
6-5-72	58.00	6.90	4.30	13.00	.00	20.60	102.0	.01
8-7-72	76.80	13.60	3.00	8.30	.01	62.00	127.8	.00
10-16-72	44.40	10.70	1.50	2.40	.02	15.10	34.4	.00
11-5-72	63.20	11.60	2.60	3.00	.10	26.00	32.4	.00
1-22-73	160.00	13.00	2.60	3.00	.04	38.80	35.2	.01
3-19-73	63.20	7.80	2.30	1.60	.02	21.60	19.2	.00
5-8-73	110.00	11.40	2.80	.60	.27	14.90	20.1	.13

TABLE 20 (CONTINUED)

GROUND WATER
METAL DATA
JANUARY 1971 THROUGH JUNE 1973

Milligrams per Liter

Date	Ca	Mg	Fe	Al	Zn	K	Na	Cu
Well 29								
1-22-73	83.60	12.60	25.20	.20	1.08	26.00	17.8	.05
3-19-73	96.00	19.70	164.00	.20	.57	35.60	28.0	.02
5-7-73	88.00	20.40	23.70	.00	.18	33.20	25.6	.04
Well 4								
5-17-71	18.00	.50	2.20	---	.15	.60	4.1	.00
9-20-71	17.00	.60	.90	---	.09	.52	4.0	.00
10-19-71	19.00	.75	.86	.25	.03	.33	3.6	.00
12-7-71	18.40	.55	1.15	.50	.03	.90	3.3	.00
12-20-71	5.05	.40	1.10	.75	.03	.20	3.1	.00
2-7-72	5.40	.40	.80	.80	.04	.15	3.4	.00
4-3-72	5.40	.45	.60	.60	.06	.15	4.1	.00
6-5-72	5.40	.35	.45	.00	.03	.10	3.9	.00
8-7-72	18.50	.95	.45	.40	.02	.20	4.5	.01
10-2-72	6.20	.60	.40	.40	.05	.20	3.1	.00
11-5-72	3.50	.55	.35	.70	.05	.15	3.3	.00
Well 5								
1-4-71	.55	.75	.40	---	1.75	.30	4.0	.00
1-6-71	5.60	.70	.45	---	.12	.15	4.4	.02
1-11-71	3.95	.75	.35	---	.29	.10	4.3	.00
1-18-71	1.90	.75	.50	---	.14	.10	4.3	.01
1-25-71	1.45	.75	.45	---	.16	.10	4.3	.00
2-16-71	.40	.75	.00	---	.88	.23	3.9	.00
2-22-71	.70	.70	.20	---	.08	.10	4.3	.00
7-21-71	.30	.65	.00	---	.05	.10	4.4	.00
9-8-71	5.80	.70	.22	---	.02	.30	7.1	.00
10-4-71	.70	.80	.10	.50	.02	.05	4.5	.00
11-1-71	12.40	.90	.18	.00	.01	.10	4.7	.00
1-3-71	.40	.50	.38	.50	.01	.05	4.7	.00
3-6-72	.10	.55	.50	.80	.03	.15	4.8	.00
5-8-72	.00	.65	.40	.80	.01	.20	5.2	.00
6-26-72	10.80	.80	.20	.70	.01	.35	4.6	.02
9-18-72	.55	.95	.45	.40	.02	.15	6.5	.00
11-28-72	.80	2.45	1.25	.90	.14	.30	19.2	.02
3-19-73	.30	4.20	2.20	4.60	.00	.48	62.4	.00
5-21-73	.40	6.30	2.50	7.20	.15	.60	128.0	.01

TABLE 20 (CONTINUED)

GROUND WATER
METAL DATA
JANUARY 1971 THROUGH JUNE 1973

Milligrams per Liter

Date	Ca	Mg	Fe	Al	Zn	K	Na	Cu
Well 27								
11-1-71	131.00	1.00	.88	1.50	.18	.60	4.8	.00
1-3-72	9.60	.60	.58	.75	.08	.05	4.8	.00
3-6-72	.40	.60	.90	1.80	.10	.15	5.8	.03
5-8-72	.30	.60	.45	.60	.05	.15	5.7	.00
6-26-72	5.00	.70	.40	.80	.02	.60	7.2	.00
9-18-72	1.95	1.75	.45	.20	.02	.15	6.7	.00
11-28-72	1.40	1.70	.60	.60	.05	.15	13.5	.02
3-19-73	.60	2.00	.75	1.00	.03	.15	12.8	.00
5-21-73	.40	2.50	2.20	.60	.05	.10	18.4	.00
Well 28								
11-1-71	4.00	2.95	.24	1.35	.32	.35	8.9	.00
1-3-72	1.50	1.50	.62	.50	.07	.15	5.4	.00
3-6-72	0.30	1.20	.45	1.20	.13	.35	7.0	.02
5-8-72	0.00	1.40	.90	.80	.07	.30	7.0	.00
6-26-72	.60	2.30	.10	1.00	.05	.95	6.6	.02
9-18-72	1.00	1.10	.20	1.20	.01	.60	2.5	.04
11-28-72	.86	2.10	.65	.70	.06	.55	3.1	.00
3-19-73	.10	1.50	.40	2.80	.07	.70	3.1	.00
5-21-73	.30	1.85	.60	1.00	.20	.80	3.0	.05
Well 6								
1-6-71	.85	.75	.20	---	1.83	.30	3.6	.00
1-18-71	.35	.75	.10	---	1.25	.25	3.8	.03
1-25-71	.55	.75	.00	---	1.36	.23	3.8	.01
2-16-71	.70	.70	.10	---	.08	.10	4.3	.00
2-22-71	.30	.75	.00	---	.76	.20	4.0	.00
5-10-71	.15	.75	1.00	---	.39	.15	4.3	.02
7-21-71	.35	.80	.00	---	.27	.15	4.4	.00
9-8-71	.40	.80	.30	---	.08	.20	4.2	.00
8-7-72	18.50	.95	1.05	.40	.02	.15	4.5	.01
10-16-72	1.60	.80	.85	1.10	.04	.15	4.5	.00
11-28-72	1.00	.90	.45	.20	.07	.25	4.2	.02
1-22-73	.90	1.00	.50	.20	.04	.20	5.4	.00
3-19-73	.50	.70	.60	.00	.06	.20	4.4	.00
5-7-73	.60	1.00	1.55	.20	.05	.25	7.1	.00

TABLE 20 (CONTINUED)

GROUND WATER
METAL DATA
JANUARY 1971 THROUGH JUNE 1973

Milligrams per Liter

Date	Ca	Mg	Fe	Al	Zn	K	Na	Cu
Well 7								
12-4-72	4.60	3.40	3.60	.20	.07	.08	4.9	.00
4-16-73	1.10	2.55	1.55	.00	.10	.18	4.6	.00
6-18-73	.90	1.45	2.25	.20	.11	.10	6.4	.03
Well 15								
12-4-72	12.80	4.20	4.50	.30	.09	.10	4.6	.00
4-16-73	1.60	3.00	1.40	.60	.13	.10	4.2	.04
6-18-73	5.20	2.80	3.40	.40	.22	.10	4.6	.06
Well 8								
12-18-72	.60	1.90	1.00	.30	.03	.15	6.5	.02
Well 9								
5-17-71	63.00	.15	.20	---	.02	2.50	6.8	.00
9-20-71	41.50	.50	1.80	---	.03	.45	5.3	.01
10-19-71	30.50	1.00	1.75	.25	.01	.35	5.8	.00
12-7-71	18.80	.80	1.00	.50	.01	.30	5.1	.00
2-21-72	10.00	1.00	1.20	.60	.02	.35	5.5	.04
4-17-72	10.60	1.10	.90	.60	.00	.35	6.3	.00
6-20-72	9.80	1.15	.85	.60	.01	.20	6.4	.00
9-27-72	6.85	.90	.80	.00	.02	.15	5.8	.00
10-16-72	6.50	.95	.75	.70	.05	.25	6.8	.02
11-5-72	8.20	1.35	.60	.30	.03	.15	5.4	.00
Well 10								
1-4-71	.55	1.00	1.00	---	.48	.15	4.2	.00
1-6-71	.45	1.05	.00	---	.55	.15	4.5	.00
1-11-71	.75	1.00	.00	---	.60	.15	4.5	.01
1-18-71	.45	1.00	.00	---	.53	.20	4.8	.02
1-25-71	.40	1.00	.00	---	.41	.20	4.5	.00
2-16-71	.45	.85	.00	---	.19	.10	4.4	.00
2-22-71	.30	.90	.00	---	.20	.10	4.3	.00
5-10-71	.40	.90	.00	---	.08	.15	3.8	.00
7-21-71	.30	.75	.00	---	.04	.20	3.3	.00
9-8-71	.30	.90	.30	---	.05	.10	3.5	.00
10-4-71	.35	.85	.01	.50	.03	.10	3.3	.00
11-1-71	.45	.95	.00	.00	.05	.10	3.5	.00

TABLE 20 (CONTINUED)

GROUND WATER
METAL DATA
JANUARY 1971 THROUGH JUNE 1973

Milligrams per Liter

Date	Ca	Mg	Fe	Al	Zn	K	Na	Cu
Well 10 (Cont.)								
1-3-72	.30	.55	.24	.00	.03	.10	3.3	.00
3-6-72	.20	.65	.50	.40	.04	.20	3.7	.04
5-8-72	.10	.60	.20	.40	.02	.20	3.3	.00
6-26-72	.60	.90	.35	.00	.05	.10	3.6	.00
9-18-72	.55	.70	.20	.10	.05	.15	2.9	.00
12-18-72	.40	.90	.30	.50	.04	.25	3.5	.00
4-16-73	.30	.95	.25	.00	.07	.28	3.8	.00
6-18-73	.40	1.75	.20	.00	.05	.10	3.4	.01
Well 11								
11-1-71	.80	1.00	.02	.30	.08	.10	3.9	.00
1-3-72	.40	.75	.36	.80	.05	.05	3.4	.00
3-6-72	.10	.65	.80	1.60	.07	.15	3.8	.02
5-8-72	.20	.70	.30	.40	.02	.10	3.1	.00
6-26-72	.40	1.05	.30	.00	.01	.10	3.6	.02
9-18-72	.30	.90	.25	.20	.02	.15	3.3	.00
12-18-72	.50	1.00	.20	.40	.03	.25	3.5	.00
4-16-73	.20	.90	.30	.00	.05	.13	3.8	.00
6-18-73	.20	.70	.30	.50	.06	.05	3.3	.04
Well 12								
11-1-71	.85	1.05	.20	.30	.03	.20	5.2	.00
1-3-72	.50	.80	.22	.30	.02	.08	4.3	.00
3-6-72	.00	.70	.50	1.00	.03	.10	5.3	.02
5-8-72	.00	.70	.20	.40	.01	.10	4.6	.00
6-26-72	.20	.90	.30	.08	.08	.55	6.0	.01
9-18-72	.40	.80	.10	.00	.03	.10	4.1	.00
12-18-72	.70	1.20	.20	.30	.01	.25	4.3	.00
4-16-73	.30	.80	.25	.00	.04	.19	4.0	.02
6-18-73	.20	.75	.20	.00	.04	.00	4.8	.04
Well 13								
5-17-71	2.20	.80	.55	---	.05	.52	7.0	.00
9-20-71	2.10	1.35	1.25	---	.05	.20	7.0	.00
10-19-71	.90	1.25	.02	.00	.05	.10	7.2	.00
12-7-71	.60	1.20	.28	.50	.05	.10	7.0	.00
2-21-72	.20	.95	1.10	.20	.03	.20	7.0	.00

TABLE 20 (CONTINUED)

GROUND WATER
METAL DATA
JANUARY 1971 THROUGH JUNE 1973

Milligrams per Liter

Date	Ca	Mg	Fe	Al	Zn	K	Na	Cu
Well 13 (Cont.)								
4-17-72	.50	.90	1.45	.60	.03	.70	7.2	.00
6-20-72	.60	1.00	1.50	.20	.02	.15	6.3	.00
9-27-72	.80	1.20	.90	.00	.04	.15	7.3	.00
10-16-72	1.00	1.25	.10	.40	.05	.20	7.6	.02
Well 37								
12-18-72	6.40	1.70	1.95	.40	.06	.20	6.8	.02
Well 38								
12-18-72	1.20	1.20	1.20	.60	.04	.25	6.9	.00
Well 14								
1-8-73	2.90	1.50	1.85	---	---	.30	2.5	.02
2-19-73	1.60	1.00	1.80	.20	.03	.20	3.6	.02
Well 16								
1-4-71	1.30	.75	2.00	---	.78	.20	5.1	.00
1-6-71	.95	.75	.15	---	.65	.20	5.2	.00
1-11-71	.90	.75	.30	---	.50	.20	5.3	.02
1-18-71	.95	.75	.10	---	.39	.15	5.5	.00
1-25-71	.55	.75	.20	---	.37	.20	5.4	.00
2-16-71	.55	.75	.08	---	.43	.10	5.4	.00
2-22-71	.35	.75	.20	---	.20	.15	5.7	.00
5-10-71	.50	.60	.20	---	.09	.10	5.0	.00
7-21-71	.35	.40	.10	---	.12	1.25	15.2	.00
8-26-71	.35	.35	.10	---	.13	2.60	10.4	.00
9-8-71	.50	.45	.12	---	.13	1.70	6.5	.00
10-4-71	.45	.60	.56	1.00	.11	1.60	4.4	.00
11-1-71	1.50	.75	.54	.30	.07	.80	2.9	.00
1-18-72	.40	.80	.86	.80	.05	.20	4.7	.00
3-20-72	.30	.70	.60	.20	.04	.25	5.7	.00
5-22-72	.60	.75	.70	.00	.08	.30	5.4	.00
7-17-72	.80	.80	.35	.20	.06	.95	4.4	.04
9-18-72	1.05	.85	.80	.20	.01	.50	2.7	.00
2-5-73	1.10	.90	.45	.20	.13	.50	5.1	.02

TABLE 20 (CONTINUED)

GROUND WATER
METAL DATA
JANUARY 1971 THROUGH JUNE 1973

Milligrams per Liter

Date	Ca	Mg	Fe	Al	Zn	K	Na	Cu
Well 17								
11-1-71	.80	.55	.10	.00	.03	.10	1.5	.00
1-18-72	.30	.70	.30	1.50	.00	.13	4.4	.00
3-20-72	.00	.60	.25	.40	.00	.15	4.5	.00
5-22-72	.20	.80	.40	.20	.01	.15	4.3	.00
7-17-72	7.20	.70	.30	.00	.01	.15	2.6	.01
9-18-72	.55	.60	.25	.00	.01	.20	1.7	.00
2-5-73	.60	1.00	.40	.00	.08	.15	3.6	.00
Well 18								
11-1-71	.45	.80	.20	.30	.08	.23	1.8	.00
1-18-72	.30	.60	.32	.80	.00	.15	1.1	.00
3-20-72	.00	.65	.35	.40	.03	2.50	1.0	.00
5-22-72	.10	.65	.40	.00	.03	.35	.8	.00
7-17-72	.00	1.25	.50	.20	.04	.75	1.2	.00
9-18-72	.45	1.10	.40	.50	.02	.55	2.1	.00
2-5-73	.70	1.30	.40	1.00	.18	.45	1.7	.04
Well 19								
7-21-71	.35	1.30	.00	---	.01	.10	7.2	.00
9-20-71	.80	1.15	.90	---	.01	.05	5.7	.00
10-19-71	.40	1.20	.05	.00	.01	.08	5.7	.00
12-7-71	.30	1.10	.78	.30	.01	.05	5.6	.00
2-21-72	.10	.95	.80	.20	.01	.15	6.4	.00
4-17-72	.30	1.00	.90	.40	.02	.30	6.8	.01
6-20-72	.40	1.00	.70	.80	.01	.10	7.3	.00
9-27-72	.40	1.20	.85	.00	.01	.15	8.1	.02
10-16-72	.50	1.30	.70	.60	.05	.20	7.0	.00
Well 20								
1-4-71	5.20	.90	.20	---	.12	.20	6.6	.00
1-6-71	5.95	.95	1.60	---	.18	.20	6.5	.00
1-11-71	5.35	.90	.04	---	.32	.20	6.5	.02
1-18-71	5.45	.95	.00	---	.14	.20	7.0	.00
1-25-71	6.20	.90	.00	---	.14	.20	6.7	.00
2-16-71	5.90	.90	.00	---	.07	.20	6.9	.00
2-22-71	5.00	1.00	.00	---	.07	.15	6.7	.00
7-21-71	6.25	.90	.10	---	.05	.20	7.5	.00
8-26-71	4.80	.90	.06	---	.07	.20	7.5	.00

TABLE 20 (CONTINUED)

GROUND WATER
METAL DATA
JANUARY 1971 THROUGH JUNE 1973

Milligrams per Liter

Date	Ca	Mg	Fe	Al	Zn	K	Na	Cu
Well 20 (Cont.)								
9-8-71	4.05	.90	.65	.30	.07	.20	7.4	.00
10-4-71	4.30	.90	.22	.00	.05	.15	7.1	.00
11-15-71	---	1.85	.18	---	.20	.60	7.1	.02
1-18-72	3.80	.55	.44	.80	.00	.05	6.2	.00
3-20-72	2.20	.65	.40	.40	.03	.15	6.7	.00
5-22-72	3.40	.65	.30	.20	.03	2.00	6.4	.00
7-17-72	2.80	.80	.45	.00	.03	.20	6.2	.04
9-18-72	1.70	.60	.40	.00	.03	.15	5.1	.00
Well 21								
11-15-71	4.60	.80	.12	.00	.05	.10	6.7	.00
1-18-72	.70	4.75	.70	1.30	.00	.10	6.4	.00
3-20-72	.20	.40	.50	.60	.05	.15	7.1	.00
5-22-72	.10	.50	.70	.00	.02	.10	5.7	.00
7-17-72	.20	.75	.45	.60	.01	.15	7.6	.03
9-18-72	.45	.75	.25	.60	.02	.20	8.1	.00
Well 22								
11-15-71	4.35	.85	.22	.00	.03	.15	6.6	.01
1-8-72	.55	.50	.40	1.50	.02	.10	6.5	.00
3-20-72	.20	.45	.40	1.00	.04	.20	6.7	.00
5-22-72	.10	.45	.40	1.00	.01	.15	5.8	.01
7-17-72	.40	.60	.35	.40	.02	.15	6.0	.02
9-18-72	.40	.65	.35	.00	.02	.20	4.6	.00
Well 23								
5-17-71	3.00	1.50	.70	---	.01	1.10	5.3	.02
9-20-71	3.90	1.20	.46	---	.01	.15	4.6	.00
10-19-71	1.65	1.55	.02	.00	.01	.10	4.5	.00
12-7-71	.35	1.20	.22	.00	.01	.05	4.3	.00
2-21-72	.30	1.10	.40	.00	.01	.10	5.0	.01
4-17-72	.40	.95	.45	.40	.02	.35	4.5	.01
6-20-72	.80	1.10	.40	.00	.02	.10	5.4	.00
9-27-72	.80	1.10	.70	.20	.02	.20	4.9	.02
10-16-72	1.00	1.40	.50	.20	.04	.10	5.2	.00
2-19-73	.60	1.50	.45	.20	.04	.25	5.0	.00

TABLE 20 (CONTINUED)

GROUND WATER
METAL DATA
JANUARY 1971 THROUGH JUNE 1973

Milligrams per Liter

Date	Ca	Mg	Fe	Al	Zn	K	Na	Cu
Well 24								
5-17-71	5.90	.95	.40	---	.07	.30	6.1	.01
7-21-71	5.55	.90	.20	---	.05	.25	5.4	.00
9-20-71	4.20	1.10	1.10	---	.27	.20	6.4	.00
10-19-71	4.30	1.05	.19	.00	.08	.23	6.2	.00
11-15-71	4.15	1.15	.14	.00	.03	.20	6.3	.00
12-20-71	4.50	.85	.95	1.80	.07	.23	6.0	.00
2-7-72	2.20	.95	.95	1.00	.06	.30	6.3	.01
4-3-72	2.40	1.05	1.00	.80	.06	.30	7.4	.00
6-5-72	4.20	1.00	.75	.00	.02	.30	6.2	.01
8-7-72	5.30	1.35	.85	.30	.05	.35	6.2	.00
10-2-72	3.60	1.60	1.05	.00	.03	.35	8.3	.00
11-5-72	4.20	1.50	1.00	.60	.03	.35	8.4	.00
1-8-73	4.60	1.80	.85	---	---	.40	10.0	.00
2-19-73	3.30	1.55	.04	.60	.03	.40	10.2	.00
4-3-73	4.00	1.80	1.20	.00	.07	.40	11.2	.00
6-4-73	3.70	1.25	1.20	1.00	.11	.30	11.5	.02
Well 25								
11-15-71	4.40	1.20	.34	.50	.03	.25	6.2	.02
12-20-71	1.20	.70	7.00	25.00	6.90	.75	8.0	.00
2-7-72	.20	.50	4.60	3.60	2.66	.35	7.9	.00
4-3-72	.60	.90	.23	2.00	1.41	.25	7.7	.00
6-5-72	.10	.70	4.20	5.60	2.08	.40	7.4	.01
8-7-72	.50	.25	3.85	2.00	1.70	.25	8.7	.02
10-2-72	.60	1.15	2.05	.60	1.40	.25	8.9	.02
11-5-72	.60	1.10	1.90	1.70	1.28	.25	9.1	.00
1-8-73	.80	1.10	1.65	---	---	.30	10.0	.00
2-19-73	.70	.50	.90	1.70	1.10	.20	11.8	.00
4-3-73	.70	.90	1.10	.20	.74	.20	11.6	.00
6-4-73	.80	.65	1.90	.40	.82	.20	11.3	.03
Well 26								
11-15-71	4.70	1.15	.20	.00	.05	.23	6.1	.00
12-20-71	4.00	.75	.86	.30	.00	.05	8.1	.00
2-7-72	.00	.65	.85	.60	.01	.10	7.9	.00
4-3-72	.20	.75	.70	1.00	.01	.10	9.1	.00

TABLE 20 (CONTINUED)

GROUND WATER
METAL DATA
JANUARY 1971 THROUGH JUNE 1973

Milligrams per Liter

Date	Ca	Mg	Fe	Al	Zn	K	Na	Cu
Well 26 (Cont.)								
6-5-72	.10	.85	1.00	.20	.01	.05	8.9	.01
8-7-72	1.00	1.20	1.15	.00	.02	.15	9.5	.00
10-2-72	.70	.80	.75	.20	.01	.25	10.6	.04
11-5-72	.60	.85	.65	.60	.03	.15	10.2	.00
1-8-73	.80	1.00	.65	---	---	.20	10.7	.00
2-19-73	.40	.60	.80	.60	.03	.15	10.0	.00
4-3-73	.70	.70	.50	.00	.05	.13	11.4	.02
6-4-73	.90	.50	.65	.00	.12	.15	10.8	.04
Well 31								
12-4-72	2.10	.75	.35	.40	.07	.25	2.8	.00
Well 32								
12-4-72	2.00	1.20	.45	.30	.09	.05	4.4	.00
Well 35								
7-24-72	15.20	.90	1.55	6.30	.04	.35	5.0	.04
11-28-72	2.60	1.00	1.10	.30	.05	.30	4.8	.00
1-22-73	1.80	1.15	1.25	.30	.05	.35	6.4	.02
3-19-73	1.70	.95	1.35	6.80	.11	.35	4.7	.00
5-21-73	1.70	1.10	.70	1.40	.25	.30	4.8	.00
Well 36								
7-24-72	8.80	2.50	2.25	.20	.02	.30	30.0	.02
9-27-72	7.90	13.20	6.85	7.00	.01	3.25	84.0	.00
10-16-72	3.80	8.30	6.00	2.20	.22	1.80	53.6	.00
11-28-72	25.40	20.80	6.60	8.00	.04	12.60	72.0	.02
1-22-73	21.20	15.00	8.10	8.00	.08	15.60	75.2	.01
3-19-73	70.80	19.90	7.90	11.20	.08	30.40	76.0	.02
5-21-73	85.00	18.60	7.80	5.70	.03	20.50	95.0	.00
Well A								
10-10-72	50.80	10.40	.40	.20	.02	1.50	11.0	.02
2-5-73	34.20	10.10	.45	.20	.04	1.30	10.0	.00
6-25-73	61.20	7.75	1.00	.00	.10	1.10	9.5	.04

TABLE 20 (CONTINUED)

GROUND WATER
METAL DATA
JANUARY 1971 THROUGH JUNE 1973

Milligrams per Liter

Date	Ca	Mg	Fe	Al	Zn	K	Na	Cu
Well B								
2-5-73	30.60	9.80	.45	.20	.24	1.30	12.4	.01
6-25-73	13.20	6.45	.20	.20	.22	1.45	12.5	.04
Well C								
2-5-73	59.60	5.10	3.05	.20	.14	1.25	14.2	.00
6-25-73	23.40	5.80	.25	.10	.03	1.25	16.8	.00
Well D								
2-5-73	10.40	6.80	.35	.20	.14	1.30	14.6	.01
6-25-73	10.00	5.95	.15	.00	.20	1.30	12.1	.00

TABLE 21

GROUND WATER
CARBON ANALYSES
MAY 1971 THROUGH JUNE 1973

Milligrams Per Liter

Date	Total Carbon	Total Inorganic Carbon	Total Organic Carbon	CO_2 Carbon	Carbonate Carbon
Well 2					
12-4-73	76.0	26.0	50.0	21.0	5.0
4-2-73	38.0	9.0	29.0	8.0	1.0
Well 33					
12-4-72	67.6	28.8	38.8	28.3	0.5
4-2-73	50.0	15.0	35.0	14.0	1.0
Well 34					
12-4-72	62.0	23.2	38.8	22.7	0.5
4-2-73	39.0	14.0	25.0	13.0	1.0
Well 3					
5-17-71	---	---	---	---	---
7-9-71	52.5	38.5	14.0	28.0	9.5
8-10-71	47.5	23.0	24.5	22.5	0.5
9-16-71	28.8	11.5	17.3	9.6	1.9
10-4-71	28.0	10.0	18.0	5.0	5.0
12-7-71	102.7	54.0	48.7	27.0	27.0
12-20-71	186.0	90.7	95.3	90.2	0.5
1-18-72	> 200.0	7.5	> 192.0	6.7	0.8
2-7-72	336.0	1.0	353.3	0.3	0.7
4-3-72	650.0	80.0	570.0	79.5	0.5
4-17-72	1,227.0	50.0	1,177.0	30.0	20.0
6-5-72	6.670.0	1.0	6,669.0	00.0	1.0
6-21-72	4,500.0	14.6	4,498.0	12.3	2.3
6-27-72	3,050.0	45.0	3,003.0	44.0	1.0
6-29-72	2,366.0	129.0	2,237.0	128.0	1.0
7-17-72	1,833.0	164.0	1,669.0	162.0	2.0
8-7-72	1,855.0	106.0	1,749.0	106.0	0.0
10-16-72	732.0	3.0	729.0	3.0	0.0
10-30-72	820.0	96.0	724.0	95.0	1.0
11-6-72	878.0	130.0	748.0	127.5	2.5
11-28-72	924.0	102.0	822.0	100.8	1.2
1-22-73	880.0	88.0	792.0	84.4	3.6

TABLE 21 (CONTINUED)

GROUND WATER
CARBON ANALYSES
MAY 1971 THROUGH JUNE 1973

Milligrams Per Liter

Date	Total Carbon	Total Inorganic Carbon	Total Organic Carbon	CO_2 Carbon	Carbonate Carbon
Well 29					
3-5-73	650.0	60.0	590.0	50.0	10.0
Well 4					
6-2-71	---	---	---	---	---
7-22-71	40.0	26.0	14.0	20.0	6.0
8-25-71	39.0	19.5	10.5	10.5	9.0
9-20-71	48.5	31.5	17.0	20.5	11.0
10-19-71	49.2	31.5	17.7	19.5	12.0
12-7-71	46.9	40.7	6.2	31.4	9.3
12-20-71	72.0	43.0	29.0	36.0	7.0
2-7-72	50.3	43.8	6.5	38.3	5.5
4-3-72	50.3	35.0	15.2	31.0	4.0
6-5-72	45.3	12.0	33.3	8.0	4.0
8-7-72	52.0	31.0	21.0	26.2	4.8
10-2-72	24.5	7.1	17.4	3.1	4.0
11-6-72	34.0	20.0	14.0	17.5	2.5
3-5-73	36.0	22.0	14.0	21.0	1.0
Well 5					
5-17-71	---	---	---	---	---
7-9-71	56.0	43.5	12.5	37.5	6.0
8-10-71	51.5	33.0	18.5	32.5	0.5
9-16-71	37.0	23.5	13.5	6.5	16.0
10-4-71	36.3	25.7	10.6	21.7	4.0
11-1-71	34.7	32.3	2.4	26.3	6.0
1-3-72	35.7	21.7	14.0	20.7	1.0
3-6-72	37.5	34.0	3.5	33.3	0.7
5-8-72	22.2	3.0	19.2	1.0	2.0
6-29-72	41.0	4.4	36.6	0.0	9.3
11-28-72	86.0	34.0	52.0	33.0	1.0
1-22-73	280.0	86.0	194.0	83.0	3.0
3-19-73	335.0	64.0	271.0	63.5	0.5
5-21-73	470.0	104.0	366.0	99.0	0.5

TABLE 21 (CONTINUED)

GROUND WATER
CARBON ANALYSES
MAY 1971 THROUGH JUNE 1973

Milligrams Per Liter

Date	Total Carbon	Total Inorganic Carbon	Total Organic Carbon	CO_2 Carbon	Carbonate Carbon
Well 27					
11-1-71	46.3	36.4	9.9	11.4	25.0
1-3-72	37.3	26.0	11.3	24.5	1.5
3-6-72	35.0	24.8	10.2	23.1	1.7
5-8-72	34.8	3.0	31.8	1.0	2.0
6-29-72	36.0	4.1	31.9	0.0	5.0
11-28-72	54.4	31.5	22.9	31.0	0.5
1-22-73	80.0	21.0	59.0	20.0	1.0
3-19-73	75.0	28.0	47.0	27.6	0.4
5-21-73	88.0	36.0	52.0	34.0	2.0
Well 28					
11-1-71	26.7	13.3	13.4	12.3	1.0
1-3-72	30.0	12.0	18.0	7.0	5.0
3-6-72	23.5	10.8	12.7	9.8	1.0
5-8-72	25.7	2.5	23.2	0.5	2.0
6-29-72	22.6	1.5	21.2	0.3	1.0
11-28-72	25.0	12.0	13.0	11.5	1.0
1-22-73	23.0	9.0	12.0	6.0	3.0
3-19-73	23.5	7.0	16.5	6.8	0.2
5-21-73	27.0	13.0	14.0	11.0	2.0
Well 6					
5-17-71	---	---	---	---	---
7-9-71	43.0	38.5	4.5	32.5	6.0
8-10-71	35.0	24.0	11.0	23.5	0.5
9-16-71	---	---	---	---	---
	NOTE: Well destroyed and new well constructed.				
10-30-72	31.0	22.0	9.0	20.0	2.0
11-28-72	27.0	19.0	8.0	17.8	1.2
3-19-73	25.0	11.0	14.0	9.8	1.2
7-9-73	175.0	23.0	150.0	23.0	2.0
Well 7					
12-4-72	52.0	39.5	12.5	30.5	9.0
4-2-73	45.0	27.0	18.0	25.0	2.0
6-18-73	39.0	7.0	32.0	5.2	2.0
4-16-73	56.0	33.0	23.0	31.0	2.0

TABLE 21 (CONTINUED)

GROUND WATER
CARBON ANALYSES
MAY 1971 THROUGH JUNE 1973

Milligrams Per Liter

Date	Total Carbon	Total Inorganic Carbon	Total Organic Carbon	CO_2 Carbon	Carbonate Carbon
Well 15					
12-4-72	58.0	38.2	19.8	29.2	9.0
4-2-73	40.0	21.0	19.0	18.0	3.0
6-18-73	40.0	26.0	14.0	---	---
4-16-73	51.0	30.0	21.0	26.0	4.0
5-21-73	40.0	26.0	14.0	22.0	4.0
Well 8					
12-18-72	36.0	33.0	3.0	32.5	0.5
Well 9					
6-2-71	---	---	---	---	---
7-22-71	69.0	37.0	32.0	12.5	24.5
8-25-71	69.0	30.0	39.0	7.0	23.0
9-20-71	81.0	42.0	39.0	22.0	20.0
10-19-71	66.0	32.0	34.0	17.0	15.0
12-7-71	55.0	40.0	15.0	33.5	6.5
4-17-72	40.0	10.0	30.0	2.0	8.0
6-27-72	61.0	20.5	40.5	11.5	9.0
8-30-72	36.0	12.0	14.0	6.0	6.0
10-30-72	50.5	24.0	26.5	22.5	3.5
11-6-72	56.8	33.0	23.8	27.7	5.3
3-5-73	52.0	33.0	19.0	29.0	4.0
Well 10					
5-17-71	---	---	---	---	---
7-9-71	36.0	31.5	4.5	26.5	5.0
8-10-71	30.0	21.5	8.5	21.0	0.5
9-16-71	16.0	12.5	3.5	10.8	1.7
10-4-71	24.7	19.5	5.2	15.5	4.0
11-1-71	27.0	31.0	Trace	30.0	< 1.0
1-3-72	28.3	26.0	2.3	24.5	1.5
3-6-72	27.8	26.3	1.5	25.0	1.3
5-8-72	24.2	3.0	21.2	1.0	2.0
6-29-72	37.3	5.4	31.9	3.1	2.3
12-18-72	21.0	16.0	5.0	15.0	1.0
6-18-73	21.0	17.0	4.0	16.0	1.0
4-16-73	33.0	29.0	4.0	28.0	1.0

TABLE 21 (CONTINUED)

GROUND WATER
CARBON ANALYSES
MAY 1971 THROUGH JUNE 1973

Milligrams Per Liter

Date	Total Carbon	Total Inorganic Carbon	Total Organic Carbon	CO_2 Carbon	Carbonate Carbon
Well 11					
11-1-71	17.0	20.3	Trace	18.3	2.0
1-3-72	24.3	23.0	1.3	21.5	1.5
3-6-72	21.0	21.0	0.0	19.6	1.4
5-8-72	20.0	3.0	17.0	1.0	2.0
6-29-72	32.0	4.9	27.1	2.9	2.0
12-18-72	20.0	16.0	4.0	15.5	0.5
6-18-73	22.0	18.0	4.0	---	---
4-16-73	28.0	26.0	2.0	25.0	1.0
Well 12					
11-1-71	21.3	22.3	Trace	20.3	2.0
1-3-72	22.0	13.0	9.0	11.5	1.5
3-6-72	18.7	11.6	7.1	10.2	1.4
5-8-72	20.3	2.0	18.3	0.0	2.0
6-29-72	28.0	3.8	24.2	1.8	2.0
8-30-72	17.0	11.0	6.0	9.0	2.0
12-18-72	17.0	13.0	4.0	12.5	0.5
6-18-73	11.0	7.0	4.0	---	---
4-16-73	26.0	19.0	7.0	17.0	2.0
Well 13					
6-2-71	---	---	---	---	---
7-22-71	37.0	35.0	2.0	31.0	4.0
8-25-71	32.0	21.0	11.0	16.0	5.0
9-20-71	40.0	32.0	8.0	30.0	2.0
10-19-71	34.0	23.0	11.0	22.0	1.0
12-7-71	35.0	34.3	0.7	33.3	1.3
2-21-72	44.7	37.5	7.2	36.4	1.1
4-17-72	30.0	21.0	8.0	19.3	1.7
6-27-72	40.0	13.0	27.0	11.0	2.0
8-30-72	25.0	22.0	3.0	21.5	0.5
10-30-72	26.0	17.0	9.0	16.0	1.0
Well 37					
12-18-72	34.0	30.0	4.0	24.0	6.0

TABLE 21 (CONTINUED)

GROUND WATER
CARBON ANALYSES
MAY 1971 THROUGH JUNE 1973

Milligrams Per Liter

Date	Total Carbon	Total Inorganic Carbon	Total Organic Carbon	CO_2 Carbon	Carbonate Carbon
Well 38					
12-18-72	43.0	38.0	5.0	37.0	1.0
Well 14					
1-10-73	46.0	41.0	5.0	40.0	1.0
2-19-73	47.0	40.0	7.0	37.0	3.0
Well 16					
5-17-71	8.0	0.0	8.0	---	---
7-9-71	47.0	40.5	6.5	36.5	4.0
8-10-71	44.0	28.0	16.0	27.0	1.0
9-16-71	30.0	23.5	6.5	19.5	4.0
10-4-71	33.3	19.2	14.1	14.4	4.8
11-1-71	25.0	20.3	4.7	18.8	1.5
1-18-72	34.0	24.5	9.5	23.2	1.3
3-20-72	22.7	15.7	7.0	14.7	3.0
5-22-72	34.0	12.3	21.7	11.3	1.0
7-17-72	41.0	28.0	13.0	27.0	1.0
9-18-72	27.0	21.0	6.0	18.0	3.0
2-5-73	30.0	16.0	14.0	15.5	0.5
Well 17					
11-1-71	17.0	11.0	6.0	10.0	< 1.0
1-18-72	18.0	10.0	8.0	8.2	1.8
2-21-72	67.3	38.3	29.0	30.7	7.6
3-20-72	21.3	15.3	6.0	14.3	1.0
5-22-72	23.0	13.3	9.7	12.3	1.0
7-17-72	30.3	18.0	12.3	17.0	1.0
9-18-72	20.0	14.0	6.0	13.0	1.0
2-5-73	23.0	12.0	11.0	11.3	0.7
Well 18					
11-1-71	18.3	14.7	3.6	13.7	< 1.0
1-18-72	15.3	8.0	7.3	6.2	1.8
3-20-72	15.0	12.0	3.0	12.0	1.0
5-22-72	43.0	6.3	33.7	5.3	1.0
7-17-72	34.0	25.0	9.0	24.0	1.0

TABLE 21 (CONTINUED)

GROUND WATER
CARBON ANALYSES
MAY 1971 THROUGH JUNE 1973

Milligrams Per Liter

Date	Total Carbon	Total Inorganic Carbon	Total Organic Carbon	CO_2 Carbon	Carbonate Carbon
Well 18 (Cont.)					
9-18-72	18.0	13.0	5.0	12.0	1.0
2-5-73	20.0	11.0	9.0	10.7	0.3
Well 19					
6-2-71	---	---	---	---	---
7-22-71	30.0	27.5	2.5	26.5	1.0
8-25-71	35.0	24.5	11.5	22.8	1.7
9-20-71	48.0	35.0	13.0	32.0	3.0
10-19-71	41.0	29.5	10.5	29.0	0.5
12-7-71	60.0	42.0	18.0	41.0	1.0
2-21-72	59.0	49.7	9.3	48.4	1.3
4-17-72	26.0	24.0	2.0	23.0	1.0
6-27-72	51.0	21.0	30.0	20.0	1.0
8-30-72	43.0	40.0	3.0	39.0	2.0
10-30-72	34.0	24.0	10.0	23.0	1.0
Well 20					
5-17-71	7.0	7.0	0.0	---	---
7-9-71	39.0	38.5	0.5	32.5	6.0
8-10-71	44.0	34.0	10.0	31.0	3.0
9-16-71	27.5	13.0	14.5	12.0	1.0
10-4-71	36.5	26.5	7.5	8.8	19.0
11-15-71	44.7	33.7	11.0	28.7	5.0
1-18-72	31.7	19.5	12.2	17.5	2.0
3-20-72	29.3	4.3	25.0	0.3	4.0
5-22-72	99.0	21.0	78.0	18.0	3.0
7-17-72	52.3	38.6	13.7	35.6	3.0
9-18-72	42.0	36.0	36.0	35.0	1.0
1-22-73	46.5	32.0	14.5	29.0	3.0
Well 21					
11-15-71	36.0	30.0	6.0	25.0	5.0
1-18-72	27.3	18.9	8.4	16.6	2.3
3-20-72	24.0	17.3	6.7	16.3	1.0
5-22-72	26.0	12.0	14.0	13.5	1.5

TABLE 21 (CONTINUED)

GROUND WATER
CARBON ANALYSES
MAY 1971 THROUGH JUNE 1973

Milligrams Per Liter

Date	Total Carbon	Total Inorganic Carbon	Total Organic Carbon	CO_2 Carbon	Carbonate Carbon
Well 21 (Cont.)					
7-17-72	57.3	37.3	20.0	35.3	2.0
9-18-72	32.0	31.0	31.0	30.0	1.0
1-22-73	39.0	27.0	12.0	22.0	5.0
Well 22					
11-15-71	41.3	32.0	9.3	27.0	5.0
1-18-72	31.0	17.9	13.1	16.3	1.6
3-20-72	17.0	7.3	9.7	6.3	1.0
5-22-72	20.7	16.0	3.3	14.0	2.0
7-17-72	51.3	42.0	9.3	40.0	3.0
9-18-72	41.0	36.5	36.5	33.5	3.0
1-22-73	39.0	27.5	11.5	23.5	4.0
Well 23					
6-2-71	---	---	---	---	---
7-22-71	29.5	29.0	0.5	25.0	4.0
8-25-71	32.0	25.0	7.0	20.3	4.7
9-20-71	41.0	33.5	7.5	30.5	3.0
10-19-71	31.0	27.0	4.0	25.0	2.0
12-7-71	44.7	38.3	6.4	37.3	1.0
2-21-72	50.8	46.7	4.1	44.7	2.0
4-17-72	21.0	18.3	1.7	16.1	2.2
6-27-72	31.0	17.0	14.0	14.7	2.3
8-30-72	22.0	18.5	3.5	18.0	0.5
10-30-72	40.0	31.0	9.0	29.7	1.3
2-19-73	41.0	35.0	6.0	32.0	3.0
Well 24					
6-2-71	---	---	---	---	---
7-22-71	46.0	44.0	2.0	40.0	4.0
8-25-71	35.0	25.0	10.0	19.0	6.0
9-20-71	39.0	31.5	7.5	27.5	4.0
10-19-71	36.7	27.0	9.7	23.0	4.0
11-15-71	31.7	28.0	3.7	22.3	5.7
12-20-71	51.0	45.0	6.0	41.0	4.0

TABLE 21 (CONTINUED)

GROUND WATER
CARBON ANALYSES
MAY 1971 THROUGH JUNE 1973

Milligrams Per Liter

Date	Total Carbon	Total Inorganic Carbon	Total Organic Carbon	CO_2 Carbon	Carbonate Carbon
Well 24 (Cont.)					
2-7-72	55.3	55.3	0.0	51.8	3.5
4-3-72	30.7	22.3	8.4	20.5	1.8
6-5-72	38.0	29.0	9.0	25.0	4.0
8-7-72	54.0	45.5	18.5	39.7	5.8
10-2-72	31.5	26.8	4.7	24.8	2.0
11-6-72	33.5	27.0	16.5	23.8	3.2
1-10-73	43.0	32.0	11.0	30.0	2.0
3-5-73	32.0	24.0	8.0	22.0	2.0
Well 25					
11-15-71	38.3	34.3	4.0	29.3	5.0
12-20-71	36.3	28.0	8.3	23.5	4.5
2-7-72	42.7	35.8	6.9	34.2	1.6
4-3-72	40.0	31.8	8.2	28.8	3.0
6-5-72	30.7	23.0	7.7	21.0	2.0
8-7-72	34.0	26.0	8.0	24.5	1.5
10-2-72	19.0	17.2	1.8	14.7	2.5
11-6-72	23.5	17.8	5.7	15.6	2.2
1-10-73	32.0	27.0	5.0	25.0	2.0
3-5-73	23.0	14.0	9.0	13.0	1.0
Well 26					
11-15-71	42.0	34.3	7.0	30.0	5.0
12-20-71	40.3	28.0	11.6	27.9	0.8
2-7-72	26.0	27.3	0.0	26.5	0.8
4-3-72	12.5	10.0	2.5	9.5	0.5
6-5-72	65.0	10.7	54.3	9.7	1.0
8-7-72	24.5	20.0	4.5	20.0	0.0
10-2-72	15.0	12.2	2.8	11.2	1.0
11-6-72	20.0	14.8	5.2	13.3	1.5
1-10-73	14.0	13.0	1.0	12.5	0.5
3-5-73	18.0	11.0	7.0	10.0	1.0
Well 31					
12-4-72	29.6	29.3	0.3	26.3	3.0
4-2-73	26.0	17.0	9.0	15.0	2.0

TABLE 21 (CONTINUED)

GROUND WATER
CARBON ANALYSES
MAY 1971 THROUGH JUNE 1973

Milligrams Per Liter

Date	Total Carbon	Total Inorganic Carbon	Total Organic Carbon	CO_2 Carbon	Carbonate Carbon
Well 32					
12-4-72	27.0	26.0	1.0	23.5	2.5
4-2-73	25.0	13.0	12.0	12.0	1.0
Well 35					
11-28-72	45.0	42.5	2.5	39.5	3.0
3-19-73	38.0	25.5	12.5	23.5	2.0
5-21-73	44.0	38.0	6.0	35.0	3.0
Well 36					
11-28-72	672.0	55.8	616.2	55.3	0.5
3-19-73	940.0	122.0	818.0	121.5	0.5
5-21-73	760.0	168.0	592.0	165.0	3.0
Well A					
10-16-72	53.0	41.0	11.0	0.0	41.0
2-5-73	46.0	28.0	18.0	0.0	28.0
Well B					
2-5-73	30.0	18.0	12.0	0.0	18.0
Well C					
2-5-73	49.0	33.0	16.0	2.0	31.0
Well D					
2-5-73	14.0	4.0	10.0	0.0	4.0

TABLE 22

GROUND WATER
MICROBIOLOGICAL ANALYSES
FEBRUARY 1971 THROUGH JUNE 1973

Viable Organisms per Milliliter

	Aerobic Bacterial Counts	Anaerobic Bacterial Counts	Counts of Sulfur-Oxidizing Bacteria	Counts of Sulfur-Reducing Bacteria	Gram (+) Bacterial Counts Possible Staphylococcus	Counts of Filamentous Fungi	Fecal Coliform Counts (per 100 ml)
Well 2							
12-4-72	950	400	---	78	355	---	0
4-2-73	3,000	390	---	3	59	---	0
Well 33							
12-4-72	250	---	---	2	84	---	0
4-2-73	3,300	220	---	4	27	---	0
Well 34							
12-4-72	1,330	63	---	0	17	---	0
4-2-73	3,000	260	---	5	84	---	0
Well 3							
2-15-71	11,000	4,100	---	---	---	---	0
2-22-71	16,900	1,800	---	---	---	---	0
3-1-71	23,000	4,300	5,000	B	---	---	0
3-8-71	17,450	5,200	1,300	B	---	---	0
4-5-71	4,266	17,600	235	145	---	---	0
5-12-71	3,800	8,300	750	140	---	---	0
7-10-71	5,000	2,000	---	260	125	56	0
9-16-71	5,700	410	162	0	75	10	0
10-4-71	8,200	240	168	375	675	5	0
12-13-71	10,300	6,000	---	80	75	16	0
12-21-71	55,000	31,000	417	75	20	0	0
1-18-72	37,400	25,550	---	---	---	---	---
2-7-72	---	19,100	1,300	40	66	20	0
4-3-72	2,250	16,900	1,500	14	10	0	0
4-17-72	18,500	3,500	480	10	20	6	0

TABLE 22 (CONTINUED)

GROUND WATER
MICROBIOLOGICAL ANALYSES
FEBRUARY 1971 THROUGH JUNE 1973

Viable Organisms per Milliliter

	Aerobic Bacterial Counts	Anaerobic Bacterial Counts	Counts of Sulfur-Oxidizing Bacteria	Counts of Sulfur-Reducing Bacteria	Gram (+) Bacterial Counts Possible Staphylococcus	Counts of Filamentous Fungi	Fecal Coliform Counts (per 100 ml)
Well 3 (Cont.)							
5-8-72	9,340	1,000	840	100	31	14	0
6-5-72	21,600	13,000	948	60	84	19	0
6-27-72	20,900	10,400	207	30	20	28	0
7-17-72	5,100	14,400	0	163	5	0	0
8-7-72	3,300	800	0	0	0	0	0
10-16-72	9,600	6,300	---	0	150	14	0
10-30-72	5,500	1,200	1,000	15	8	0	0
11-6-72	9,500	400	1,700	32	37	12	0
12-18-72	21,600	---	---	310	9	---	0
1-22-73	45,000	4,200	---	15	1,000	---	0
2-19-73	30,800	4,000	---	20	120	---	0
Well 29							
3-5-73	25,500	55,000	---	3,000	450	---	0
5-7-73	---	---	---	---	---	---	---
Well 4							
7-27-71	1,900	290	50	60	10	3	0
8-25-71	3,320	325	235	310	52	8	0
9-16-71	---	416	---	---	---	---	---
9-20-71	2,500	352	114	170	13	5	0
10-19-71	4,000	280	60	148	15	3	0
12-13-71	2,500	425	---	200	65	4	0
12-21-71	1,875	680	185	150	10	0	0
2-7-72	760	420	57	75	11	0	0
4-3-72	1,870	193	75	60	0	0	0
5-8-72	---	---	50	---	---	---	---

TABLE 22 (CONTINUED)

GROUND WATER MICROBIOLOGICAL ANALYSES FEBRUARY 1971 THROUGH JUNE 1973

Viable Organisms per Milliliter

	Aerobic Bacterial Counts	Anaerobic Bacterial Counts	Counts of Sulfur-Oxidizing Bacteria	Counts of Sulfur-Reducing Bacteria	Gram (+) Bacterial Counts Possible Staphylococcus	Counts of Filamentous Fungi	Fecal Coliform Counts (per 100 ml)
Well 4 (Cont.)							
6-5-72	355	30	32	43	6	10	0
8-7-72	760	62	81	68	17	4	0
10-2-72	570	55	275	31	25	3	0
11-6-72	260	20	125	13	5	0	0
12-18-72	---	---	---	---	---	---	---
3-5-73	730	71	---	34	4	---	0
Well 5							
2-15-71	3,500	260	---	---	---	---	0
2-22-71	2,900	185	---	---	---	---	0
3-1-71	6,300	125	800	50	---	---	0
3-8-71	3,550	152	240	60	---	---	0
4-5-71	840	178	---	29	---	---	0
5-12-71	110	70	20	20	---	---	0
7-10-71	540	95	---	58	10	11	0
8-16-71	510	84	630	15	130	10	0
9-16-71	3,195	---	493	0	15	10	0
10-4-71	760	80	50	20	5	3	0
11-1-71	5,300	60	54	35	15	6	0
12-21-71	1,875	---	---	---	---	---	---
1-3-72	430	140	---	0	5	---	0
3-6-72	87	20	10	0	7	0	0
5-8-72	90	90	---	0	6	7	0
6-29-72	908	150	180	18	35	8	0
12-4-72	5,400	8	---	2	47	3	0
12-18-72	---	---	---	---	---	---	---
1-22-73	140	60	---	1	5	---	0

TABLE 22 (CONTINUED)

GROUND WATER MICROBIOLOGICAL ANALYSES FEBRUARY 1971 THROUGH JUNE 1973

Viable Organisms per Milliliter

	Aerobic Bacterial Counts	Anaerobic Bacterial Counts	Counts of Sulfur-Oxidizing Bacteria	Counts of Sulfur-Reducing Bacteria	Gram (+) Bacterial Counts Possible Staphylococcus	Counts of Filamentous Fungi	Fecal Coliform Counts (per 100 ml)
Well 5 (Cont.)							
3-19-73	2,020	—	—	0	412	—	0
5-21-73	160	80	—	—	0	—	0
Well 27							
11-1-71	11,000	175	—	175	220	2	0
1-3-72	4,500	400	—	300	90	5	0
3-6-72	3,800	240	59	70	142	5	0
5-8-72	1,550	98	43	86	125	20	0
6-29-72	3,600	110	605	165	310	4	0
12-4-72	29,500	2,000	4,000	16	248	0	0
12-21-72	—	—	—	—	—	—	—
1-22-73	85	190	—	4	6	—	0
3-19-73	3,100	—	—	0	189	—	0
5-21-73	120	80	—	—	0	—	0
Well 28							
11-1-71	4,750	300	—	220	132	15	0
1-3-72	5,600	395	—	98	107	8	0
3-6-72	2,500	200	175	13	122	8	0
5-8-72	1,200	50	48	45	59	39	0
6-29-72	1,130	16	22	21	27	0	0
11-27-72	15,500	270	2,500	2	47	2	0
12-21-72	—	—	—	—	—	—	—
3-19-72	2,800	—	—	0	337	—	0
5-21-72	150	420	—	—	0	—	0

TABLE 22 (CONTINUED)

GROUND WATER MICROBIOLOGICAL ANALYSES FEBRUARY 1971 THROUGH JUNE 1973

Viable Organisms per Milliliter

	Aerobic Bacterial Counts	Anaerobic Bacterial Counts	Counts of Sulfur-Oxidizing Bacteria	Counts of Sulfur-Reducing Bacteria	Gram (+) Bacterial Counts Possible Staphylococcus	Counts of Filamentous Fungi	Fecal Coliform Counts (per 100 ml)
Well 6							
2-15-71	11,000	360	—	—	—	—	0
2-22-71	3,500	180	—	—	—	—	0
3-1-71	4,100	165	1,050	B	—	—	0
3-8-71	3,475	1,010	560	B	—	—	0
4-5-71	1,033	725	146	145	—	—	0
5-12-71	375	177	128	70	—	—	0
7-10-71	660	150	—	115	23	32	0
8-16-71	740	50	217	30	34	13	0
10-30-72	300	140	1,500	11	13	20	0
11-27-72	40,000	2,000	—	10	0	0	0
12-18-72	—	—	—	—	—	—	—
3-19-73	7,000	—	—	20	310	—	0
6-18-73	—	—	—	—	—	—	—
Well 7							
12-4-72	1,230	450	—	26	205	—	0
4-2-73	9,800	270	—	20	384	—	0
4-16-73	840	90	—	10	50	—	0
6-18-73	80	—	—	—	68	—	0
Well 15							
12-4-72	4,380	204	—	45	93	—	0
4-2-73	9,300	680	—	59	750	—	0
4-16-73	4,000	230	—	28	40	—	0
6-18-73	2,500	—	—	—	45	—	0

TABLE 22 (CONTINUED)

GROUND WATER
MICROBIOLOGICAL ANALYSES
FEBRUARY 1971 THROUGH JUNE 1973

Viable Organisms per Milliliter

	Aerobic Bacterial Counts	Anaerobic Bacterial Counts	Counts of Sulfur-Oxidizing Bacteria	Counts of Sulfur-Reducing Bacteria	Gram (+) Bacterial Counts Possible Staphylococcus	Counts of Filamentous Fungi	Fecal Coliform Counts (per 100 ml)
Well 8							
12-18-72	12,500	—	—	12	478	—	0
Well 9							
7-27-71	3,700	280	100	300	5	5	0
8-25-71	3,050	200	120	230	56	5	0
9-20-71	5,000	350	294	40	15	0	0
10-19-71	5,300	395	250	102	32	4	0
12-13-71	3,400	250	—	123	52	7	0
2-21-72	2,380	50	25	143	—	2	0
3-6-72	—	—	—	—	6	—	—
4-17-72	1,280	148	15	50	5	5	0
6-27-72	1,200	88	25	0	35	16	0
8-30-72	3,420	30	825	33	57	29	0
10-30-72	185	45	80	22	5	5	0
11-6-72	340	45	89	132	10	0	0
12-4-72	—	—	—	—	—	—	—
12-18-72	—	—	—	—	—	—	—
3-5-73	3,900	385	—	32	20	—	0
Well 10							
2-15-71	7,800	60	—	--	—	—	0
2-22-71	295	60	—	—	—	—	0
3-1-71	11,300	68	1,995	100	—	—	0
3-8-71	305	185	255	120	—	—	0
4-5-71	677	153	134	15	—	—	0
5-12-71	620	75	85	15	—	—	0
7-10-71	240	200	—	62	27	46	0

TABLE 22 (CONTINUED)

GROUND WATER
MICROBIOLOGICAL ANALYSES
FEBRUARY 1971 THROUGH JUNE 1973

Viable Organisms per Milliliter

	Aerobic Bacterial Counts	Anaerobic Bacterial Counts	Counts of Sulfur-Oxidizing Bacteria	Counts of Sulfur-Reducing Bacteria	Gram (+) Bacterial Counts Possible Staphylococcus	Counts of Filamentous Fungi	Fecal Coliform Counts (per 100 ml)
Well 10 (Cont.)							
8-16-71	640	692	289	25	26	15	0
9-16-71	510	73	112	0	20	10	0
10-4-71	1,320	30	40	15	1	2	0
11-1-71	640	30	75	15	0	0	0
1-3-72	350	100	—	5	8	—	0
3-6-72	8,400	28	15	0	7	0	0
5-8-72	120	15	21	5	5	2	0
6-29-72	220	15	15	4	8	6	0
8-30-72	3,800	80	—	—	—	—	—
12-18-72	2,380	—	—	2	87	2	0
1-10-73	—	—	—	—	—	—	—
4-16-73	400	46	—	4	13	—	0
6-18-73	260	—	—	—	0	—	0
Well 11							
11-1-71	5,250	200	*	60	122	3	0
1-3-72	13,200	700	*	195	400	—	0
3-6-72	7,500	200	162	7	200	10	0
5-8-72	4,100	65	58	75	140	40	0
6-29-72	10,500	43	52	85	340	11	0
12-18-72	2,200	—	—	39	10	3	0
4-16-72	58	8	—	23	12	—	0
6-18-72	380	—	—	—	10	—	0
Well 12							
11-1-71	6,175	116	*	100	125	6	0
1-3-72	5,200	340	—	112	100	0	0

*Too numerous to count at highest dilution prepared.

TABLE 22 (CONTINUED)

GROUND WATER
MICROBIOLOGICAL ANALYSES
FEBRUARY 1971 THROUGH JUNE 1973

Viable Organisms per Milliliter

	Aerobic Bacterial Counts	Anaerobic Bacterial Counts	Counts of Sulfur-Oxidizing Bacteria	Counts of Sulfur-Reducing Bacteria	Gram (+) Bacterial Counts Possible Staphylococcus	Counts of Filamentous Fungi	Fecal Coliform Counts (per 100 ml)
Well 12 (Cont.)							
3-6-72	7,500	280	137	5	140	25	0
5-8-72	2,400	30	80	23	100	25	0
6-29-72	10,500	88	150	32	1,100	50	0
8-30-72	3,800	80	103	42	265	78	0
12-18-72	2,370	—	—	40	12	2	0
4-16-73	220	14	—	8	4	—	0
6-18-73	110	—	—	—	5	—	0
Well 13							
7-27-71	2,000	337	200	10	12	0	0
8-25-71	3,100	905	108	41	14	6	0
9-20-71	1,290	1,500	30	52	4	0	0
10-19-71	950	1,050	104	50	0	2	0
12-13-71	1,390	100	—	56	7	9	0
2-21-72	450	100	12	22	3	0	0
4-17-72	57	26	10	10	0	0	0
6-27-72	425	45	62	0	37	25	0
8-30-72	420	45	173	7	23	25	0
10-30-72	106	12	45	0	3	3	0
12-4-72	—	—	—	—	—	—	—
Well 37							
12-18-72	4,700	—	—	350	750	—	0
Well 38							
12-18-72	4,200	—	—	55	624	—	0

TABLE 22 (CONTINUED)

GROUND WATER
MICROBIOLOGICAL ANALYSES
FEBRUARY 1971 THROUGH JUNE 1973

Viable Organisms per Milliliter

	Aerobic Bacterial Counts	Anaerobic Bacterial Counts	Counts of Sulfur-Oxidizing Bacteria	Counts of Sulfur-Reducing Bacteria	Gram (+) Bacterial Counts Possible Staphylococcus	Counts of Filamentous Fungi	Fecal Coliform Counts (per 100 ml)
Well 14							
12-4-72	---	---	---	---	---	---	---
1-10-73	30,800	---	---	---	---	---	0
2-19-73	16,200	60	---	18	57	---	0
Well 16							
2-15-71	850	143	---	---	---	---	0
2-22-71	420	98	---	---	---	---	0
3-1-71	1,210	40	2,500	125	---	---	0
3-8-71	430	120	180	150	---	---	0
4-5-71	443	42	205	205	---	---	0
5-12-71	360	32	111	63	---	---	0
7-10-71	220	28	---	138	12	21	0
8-16-71	1,650	58	159	30	24	13	0
9-16-71	820	20	37	14	20	4	0
10-4-71	1,050	55	52	0	17	13	0
11-1-71	620	50	48	10	0	5	0
1-18-72	300	20	---	16	0	0	0
3-21-72	380	20	100	0	0	0	0
5-22-72	300	16	23	0	0	0	0
7-17-72	980	42	10	10	12	3	0
9-18-72	134	6	17	3	16	3	0
12-18-72	---	---	---	---	---	---	---
2-5-73	600	106	---	0	70	---	0
Well 17							
11-1-71	4,100	200	---	72	9	3	0
1-18-72	4,800	560	---	100	0	0	0

TABLE 22 (CONTINUED)

GROUND WATER
MICROBIOLOGICAL ANALYSES
FEBRUARY 1971 THROUGH JUNE 1973

Viable Organisms per Milliliter

	Aerobic Bacterial Counts	Anaerobic Bacterial Counts	Counts of Sulfur-Oxidizing Bacteria	Counts of Sulfur-Reducing Bacteria	Gram (+) Bacterial Counts Possible Staphylococcus	Counts of Filamentous Fungi	Fecal Coliform Counts (per 100 ml)
Well 17 (Cont.)							
3-21-72	3,000	140	175	56	0	0	0
5-22-72	2,700	103	120	25	44	17	0
7-17-72	380	21	46	15	0	2	0
9-18-72	410	9	110	15	20	0	0
12-18-72	—	—	—	—	—	—	—
2-5-73	1,320	190	—	0	103	—	0
Well 18							
11-1-71	10,450	140	—	150	150	2	0
1-18-72	11,500	480	000	125	40	10	0
3-21-72	7,600	470	410	60	463	7	0
5-22-72	1,900	300	54	27	220	4	0
7-17-72	2,900	250	162	60	51	5	0
9-18-72	200	18	185	35	0	10	0
12-18-72	—	—	—	—	—	—	—
2-5-73	7,100	225	—	12	198	—	0
Well 19							
7-27-71	625	88	60	10	35	6	0
8-25-71	705	56	37	24	19	6	0
9-20-71	60	54	9	0	0	0	0
10-19-71	775	115	23	9	0	1	0
12-13-71	1,450	55	—	0	15	5	0
2-21-72	251	27	10	0	0	0	0
4-17-72	103	12	10	0	0	0	0
6-27-72	115	6	0	0	5	3	0
8-30-72	450	76	415	0	90	70	0

TABLE 22 (CONTINUED)

GROUND WATER
MICROBIOLOGICAL ANALYSES
FEBRUARY 1971 THROUGH JUNE 1973

Viable Organisms per Milliliter

	Aerobic Bacterial Counts	Anaerobic Bacterial Counts	Counts of Sulfur-Oxidizing Bacteria	Counts of Sulfur-Reducing Bacteria	Gram (+) Bacterial Counts Possible Staphylococcus	Counts of Filamentous Fungi	Fecal Coliform Counts (per 100 ml)
Well 19 (Cont.)							
10-30-72	11	0	12	---	0	4	0
11-27-72	---	---	---	---	---	---	---
12-18-72	---	---	---	---	---	---	---
Well 20							
2-15-71	1,250	210	---	---	---	---	0
2-22-71	1,980	175	---	---	---	---	0
3-1-71	3,150	183	1,430	B	---	---	0
3-8-71	1,850	530	165	B	---	---	0
4-5-71	4,775	625	30	275	---	---	0
5-12-71	320	1,580	47	100	---	---	0
7-10-71	230	480	---	95	0	38	0
8-16-71	750	50	115	56	15	8	0
9-16-71	705	40	280	0	12	15	0
10-4-71	192	70	35	35	2	5	0
11-15-71	1,540	---	150	---	0	0	0
1-18-72	600	33	---	10	0	0	0
3-21-72	1,440	60	150	0	0	2	0
5-22-72	1,780	21	20	0	0	15	0
7-17-72	410	0	0	10	0	4	0
9-18-72	120	8	53	3	0	8	0
12-4-72	---	---	---	---	---	---	---
1-22-73	690	100	---	5	38	---	0
Well 21							
11-15-71	10,000	---	125	---	0	0	0
1-18-72	14,600	840	---	60	685	6	0

TABLE 22 (CONTINUED)

GROUND WATER
MICROBIOLOGICAL ANALYSES
FEBRUARY 1971 THROUGH JUNE 1973

Viable Organisms per Milliliter

	Aerobic Bacterial Counts	Anaerobic Bacterial Counts	Counts of Sulfur-Oxidizing Bacteria	Counts of Sulfur-Reducing Bacteria	Gram (+) Bacterial Counts Possible Staphylococcus	Counts of Filamentous Fungi	Fecal Coliform Counts (per 100 ml)
Well 21 (Cont.)							
3-21-72	15,600	1,100	220	30	190	11	0
5-22-72	6,700	940	30	27	505	13	0
7-17-72	3,900	0	70	35	250	5	0
9-18-72	1,820	139	425	27	15	17	0
12-18-72	—	—	—	—	—	—	—
1-22-73	2,500	38	—	20	150	—	0
Well 22							
11-15-71	580	—	90	—	0	0	0
1-18-72	6,330	940	—	75	510	6	0
3-21-72	12,500	690	500	50	250	4	0
5-22-72	8,600	220	20	32	550	14	0
7-17-72	4,700	70	30	46	270	7	0
9-18-72	880	24	330	18	10	3	0
12-18-72	—	—	—	—	—	—	—
1-22-73	1,020	49	—	7	35	—	0
Well 23							
7-27-71	25,280	2,500	600	25	550	5	0
8-25-71	9,300	2,300	168	85	585	5	0
9-20-71	9,500	1,620	44	30	40	7	0
10-19-71	8,200	3,150	76	0	0	0	0
12-13-71	3,100	410	—	10	400	10	0
2-21-72	2,250	800	22	7	81	0	0
4-17-72	2,260	660	17	0	10	12	0
6-27-72	480	150	40	0	19	8	0
8-30-72	1,120	268	175	0	144	46	0

TABLE 22 (CONTINUED)

GROUND WATER
MICROBIOLOGICAL ANALYSES
FEBRUARY 1971 THROUGH JUNE 1973

Viable Organisms per Milliliter

	Aerobic Bacterial Counts	Anaerobic Bacterial Counts	Counts of Sulfur-Oxidizing Bacteria	Counts of Sulfur-Reducing Bacteria	Gram (+) Bacterial Counts Possible Staphylococcus	Counts of Filamentous Fungi	Fecal Coliform Counts (per 100 ml)
Well 23 (Cont.)							
10-30-72	220	93	53	—	5	10	0
12-4-72	—	—	—	—	—	—	—
12-18-72	—	—	—	—	—	—	—
2-19-73	430	137	—	0	32	—	0
Well 24							
7-27-71	7,480	3,200	250	60	28	4	0
8-25-71	10,800	3,675	103	225	26	5	0
9-20-71	5,100	3,400	176	20	—	0	0
10-19-71	5,400	3,500	282	0	14	3	0
11-15-71	3,300	—	60	—	0	0	0
12-21-71	1,100	400	40	112	0	0	0
2-7-72	4,400	250	47	67	35	3	0
4-3-72	3,600	175	213	62	0	4	0
6-5-72	1,520	120	75	40	0	4	0
8-7-72	1,130	75	103	25	150	4	0
10-2-72	450	37	105	17	8	5	0
11-6-72	810	32	720	8	18	10	0
12-18-72	—	—	—	—	—	—	—
1-10-73	1,820	—	—	—	—	—	—
3-5-73	1,780	550	—	32	20	—	0
6-4-73	—	—	—	—	—	—	—
Well 25							
11-15-71	2,630	—	64	—	0	0	0
12-21-71	3,150	3,500	156	72	100	5	0
1-18-72	11,000	7,600	340	197	145	9	0

TABLE 22 (CONTINUED)

GROUND WATER
MICROBIOLOGICAL ANALYSES
FEBRUARY 1971 THROUGH JUNE 1973

Viable Organisms per Milliliter

	Aerobic Bacterial Counts	Anaerobic Bacterial Counts	Counts of Sulfur-Oxidizing Bacteria	Counts of Sulfur-Reducing Bacteria	Gram (+) Bacterial Counts Possible Staphylococcus	Counts of Filamentous Fungi	Fecal Coliform Counts (per 100 ml)
Well 25 (Cont.)							
4-3-72	16,700	3,200	180	20	58	6	0
6-5-72	18,500	850	450	0	74	20	0
8-7-72	8,300	1,600	1,000	50	30	30	0
10-2-72	3,000	1,350	317	15	55	50	0
11-6-72	17,700	620	3,000	20	1,500	40	0
12-4-72	—	—	—	—	—	—	—
12-18-72	—	—	—	—	—	—	—
1-10-73	36,000	—	—	—	—	—	0
3-5-73	3,370	1,000	—	55	32	8	0
6-4-73	—	—	—	—	—	—	—
Well 26							
11-15-71	3,100	—	60	—	0	0	0
12-21-71	2,075	2,950	108	50	35	2	0
1-18-72	1,870	770	211	40	35	8	0
4-3-71	3,800	200	275	20	26	4	0
6-5-72	2,100	100	122	0	160	8	0
8-7-72	1,870	30	78	20	160	12	0
10-2-72	1,100	22	117	12	25	8	0
11-6-72	825	19	3,000	8	1,100	12	0
12-4-72	—	26	—	—	—	—	—
12-18-72	—	—	—	—	—	—	—
1-10-73	30,000	—	—	—	—	—	0
3-5-73	13,800	1,650	—	75	24	—	—
6-4-73	—	—	—	—	—	—	—

TABLE 22 (CONTINUED)

GROUND WATER
MICROBIOLOGICAL ANALYSES
FEBRUARY 1971 THROUGH JUNE 1973

Viable Organisms per Milliliter

	Aerobic Bacterial Counts	Anaerobic Bacterial Counts	Counts of Sulfur-Oxidizing Bacteria	Counts of Sulfur-Reducing Bacteria	Gram (+) Bacterial Counts Possible Staphylococcus	Counts of Filamentous Fungi	Fecal Coliform Counts (per 100 ml)
Well 31							
12-4-72	4,020	76	---	25	516	---	0
4-2-73	720	110	---	0	17	---	0
Well 32							
12-4-72	2,630	43	---	3	105	---	0
4-2-73	3,800	370	---	10	168	---	0
Well 35							
11-27-72	50,000	210	---	0	30	---	0
3-19-72	6,700	---	---	11	251	---	0
5-21-72	400	---	---	---	0	---	0
Well 36							
12-4-72	25,000	4,500	---	9	4	---	0
3-19-72	1,600	---	---	7	31	---	0
5-21-72	470	1,330	---	---	0	---	0
Well A							
10-16-72	7	0	---	30	---	0	0
2-5-73	39	30	---	30	5	0	0
Well B							
2-5-73	600	45	---	250	25	0	0

TABLE 22 (CONTINUED)

GROUND WATER
MICROBIOLOGICAL ANALYSES
FEBRUARY 1971 THROUGH JUNE 1973

Viable Organisms per Milliliter

	Aerobic Bacterial Counts	Anaerobic Bacterial Counts	Counts of Sulfur-Oxidizing Bacteria	Counts of Sulfur-Reducing Bacteria	Gram (+) Bacterial Counts Possible Staphylococcus	Counts of Filamentous Fungi	Fecal Coliform Counts (per 100 ml)
Well C							
	1,650	130	---	80	50	0	0
Well D							
2-5-73	1,500	50	---	0	4	0	0

TABLE 23

SURVIVAL OF SELECTED MICROORGANISMS IN NON-ADJUSTED LEACHATE-CONTAINING GROUND WATER*

Time	Organisms							
	Escherichia coli		*Salmonella typhimurium*		*Pseudomonas aeruginosa*		*Staphlococcus aureus*	
Days	Viable Count	%**	Viable Count	%**	Viable Count	%**	Viable Count	%**
0	5.0×10^9	100	3.0×10^9	100	4.0×10^9	100	2.8×10^9	100
1	2.1×10^9	42	3.6×10^8	12	2.0×10^3	0	2.0×10^9	71
2	4.5×10^7	0.9	3.0×10^7	1.0	0	0	5.0×10^7	1.7
3	6.0×10^5	0.01	9.2×10^6	0.31	---	---	8.5×10^4	0.03
4	4.2×10^4	0.01	3.6×10^5	0.01	---	---	6.0×10^3	0.00
5	---	---	2.3×10^4	0.00	---	---	4.5×10^2	0.00
6	2.0×10^3	0.00	1.0×10^3	0.00	---	---	0	0
10	0	0	0	0	---	---	---	---

*Microorganisms were selected on the basis of pathogenicity (*Staphlococcus* and *Salmonella*), resistance capability (*Pseudomonas*), and an indicator organism (*Escherichia*). Ground water was obtained from Well No. 3 during the period beginning July, 1972 and ending December, 1972. The pH of the water at this time ranged from pH 4.3 to 4.5.

**Percentage of original viable count.

TABLE 24

SURVIVAL OF SELECTED MICROORGANISMS
IN LEACHATE-CONTAINING GROUND WATER ADJUSTED TO pH 6.8-7.0*

Time	Organisms: *Escherichia coli*		*Salmonella typhimurium*		*Pseudomonas aeruginosa*		*Staphylococcus aureus*	
Weeks	Viable Count	%**	Viable Count	%**	Viable Count	%**	Viable Count	%**
0	8.0×10^{10}	100	2.2×10^{10}	100	2.0×10^{10}	100	7.5×10^{9}	100
1	7.0×10^{10}	87	7.2×10^{9}	32.7	1.0×10^{10}	50.0	3.0×10^{4}	0
2	2.5×10^{9}	3.1	8.0×10^{9}	36.0	3.5×10^{9}	17.5	1.5×10^{3}	0
3	1.4×10^{9}	1.7	6.0×10^{8}	2.7	6.0×10^{9}	30.0	1.0×10^{3}	0
4	3.0×10^{9}	3.8	4.5×10^{8}	2.0	8.0×10^{9}	40.0	5.0×10^{2}	0
5	2.0×10^{9}	2.5	4.5×10^{8}	2.0	8.0×10^{9}	40.0	---	---
6	1.0×10^{9}	1.3	2.5×10^{8}	1.1	6.0×10^{9}	30.0	---	---
7	8.0×10^{8}	1.0	8.0×10^{7}	0.36	6.0×10^{9}	30.0	---	---
8	4.5×10^{8}	0.56	5.0×10^{7}	0.23	5.0×10^{9}	25.0	---	---
9	4.4×10^{8}	0.55	2.0×10^{7}	0.09	5.0×10^{9}	25.0	---	---
10	1.5×10^{8}	0.19	1.0×10^{7}	0.05	3.0×10^{9}	15.0	---	---

*Microorganisms were selected on the basis of pathogenicity (*Staphlococcus* and *Salmonella*), resistance capability (*Pseudomonas*), and an indicator organism (*Escherichia*). Ground water was obtained from Well No. 3 during the period beginning July, 1972 and ending December, 1972. The pH of the water at this time ranged from pH 4.3 to 4.5.

**Percentage of original viable count.

TABLE 25

DAILY RAINFALL AND TEMPERATURE
JULY 1971 THROUGH JUNE 1973

Date		Rainfall Inches	Air Temp. F High	Air Temp. F Low
1971				
July	26	.02	95	70
	27	.00	100	74
	28	.04	100	70
	29	.00	95	70
	30	.08	95	70
	31	.00	94	75
August	1	.00	90	70
	2	.05	93	70
	3	.12	95	67
	4	.07	97	70
	5	.01	100	71
	6	.00	98	72
	7	.00	87	67
	8	.00	90	70
	9	.09	95	70
	10	.00	97	68
	11	.36	98	67
	12	.09	96	70
	13	.57	85	72
	14	.47	85	72
	15	.14	88	74
	16	.00	87	70
	17	.00	95	70
	18	.00	95	71
	19	.28	95	70
	20	.01	90	70
	21	.00	95	70
	22	.00	100	70
	23	1.37	97	70
	25	.00	96	70
	26	.00	95	70
	27	.00	97	70
	28	.58	95	70
	29	.00	95	70
	30	.00	95	70
	31	.00	95	72

Date		Rainfall Inches	Air Temp. F High	Air Temp. F Low
September	1	.00	92	73
	2	.00	95	72
	3	.00	97	70
	4	.00	95	71
	5	.00	95	72
	6	.00	95	69
	7	.00	96	70
	8	.00	95	70
	9	.00	85	70
	10	.00	85	70
	11	.00	90	70
	12	.00	87	70
	13	.01	90	72
	14	.00	90	63
	15	.00	80	65
	16	.00	98	70
	17	.00	98	68
	18	.00	100	65
	19	.00	97	67
	20	.07	99	66
	21	.01	93	69
	22	.13	95	70
	23	.02	95	68
	24	.30	90	63
	25	.12	96	66
	26	.00	100	65
	27	.00	88	64
	28	.00	89	70
	29	.19	88	64
	30	.00	95	62
October	1	.00	98	63
	2	.00	95	66
	3	.19	87	65
	4	.00	88	65
	5	.00	98	70
	6	1.08	97	70
	7	.71	90	70
	8	.51	86	70
	9	.59	94	70

TABLE 25 (CONTINUED)

DAILY RAINFALL AND TEMPERATURE JULY 1971 THROUGH JUNE 1973

Date		Rainfall Inches	Air Temp. F High	Air Temp. F Low
October	10	.74	80	60
	11	.95	85	65
	12	.01	85	70
	13	.01	90	70
	14	1.96	90	70
	15	.16	97	69
	16	.02	95	70
	17	.00	90	70
	18	.36	82	69
	19	.67	80	69
	20	2.29	84	66
	21	.00	95	69
	22	.06	90	65
	23	.00	96	66
	24	.36	91	63
	25	.00	82	60
	26	.01	82	59
	27	.00	85	62
	28	.14	82	69
	29	.00	85	69
	30	.00	85	69
	31	.09	87	68
November	1	.00	85	68
	2	.00	87	69
	3	.13	90	60
	4	.00	76	60
	5	.00	79	62
	6	.00	80	65
	7	.00	80	58
	8	.00	75	55
	9	.07	80	60
	10	.00	67	50
	11	.00	70	42
	12	.00	77	42
	13	.00	70	45
	14	.00	76	55
	15	.00	80	64
November	16	.00	70	65
	17	.00	80	62
	18	.00	80	60
	19	.00	80	58
	20	1.68	80	50
	21	.00	72	44
	22	.00	65	50
	23	.52	75	64
	24	.00	80	60
	25	.00	80	59
	26	.00	86	60
	27	.00	80	50
	28	1.03	75	63
	29	.00	78	64
	30	.00	78	60
December	1	.00	70	63
	2	.75	70	62
	3	.00	75	50
	4	.00	62	55
	5	.00	70	67
	6	.00	80	60
	7	.00	85	63
	8	.00	85	65
	9	.00	87	65
	10	.68	86	60
	11	.82	87	59
	12	.00	89	59
	13	.00	88	60
	14	.00	85	62
	15	.00	86	65
	16	.01	89	60
	17	.00	87	67
	18	.00	85	60
	19	.00	70	50
	20	.00	75	60
	21	.00	72	55
	22	.00	80	65

TABLE 25 (CONTINUED)

DAILY RAINFALL AND TEMPERATURE
JULY 1971 THROUGH JUNE 1973

Date		Rainfall Inches	Air Temp. F High	Air Temp. F Low	Date		Rainfall Inches	Air Temp. F High	Air Temp. F Low
December	23	.00	80	50	February	1	1.61	76	67
	24	.00	70	42		2	.00	80	43
	25	.00	75	59		3	.00	57	39
	26	.00	70	55		4	1.47	64	48
	27	.00	80	59		5	.00	78	55
	28	.00	82	59		6	.00	75	61
	29	.00	83	60		7	.00	80	60
	30	.00	81	60		8	.49	67	56
	31	.00	79	58		9	.09	60	52
1972						10	.76	67	60
January	1	.00	70	52		11	.21	63	58
	2	.00	82	60		12	.00	78	62
	3	.00	85	60		13	.00	43	50
	4	.00	85	64		14	.00	70	44
	5	.00	85	65		15	.30	65	60
	6	.00	70	50		16	.00	62	60
	7	.00	65	48		17	.88	78	49
	8	.00	75	51		18	.00	55	44
	9	.00	82	60		19	.00	60	35
	10	.00	82	60		20	.00	65	54
	11	.00	85	64		21	.00	75	50
	12	.00	85	60		22	.00	79	50
	13	.00	87	58		23	.00	80	55
	14	.00	86	60		24	.00	84	60
	15	.00	52	39		25	.00	85	60
	16	.00	56	40		26	.00	89	65
	17	.00	68	52		27	.00	88	62
	18	.65	70	56		28	.22	90	61
	19	.00	75	55		29	.00	88	64
	20	.05	80	60					
	21	.00	84	64	March	1	.00	85	60
	22	.00	78	63		2	.00	84	69
	23	.00	82	54		3	.00	80	57
	24	.00	86	59		4	.00	80	62
	25	.00	88	65		5	.00	78	51
	26	.00	80	65		6	.00	65	54
	27	.00	84	61		7	.00	80	60
	28	.00	86	57		8	.30	85	60
	29	.00	89	56		9	.00	69	55
	30	.00	85	60		10	.00	67	49
	31	.00	75	60		11	.00	72	63

TABLE 25 (CONTINUED)

DAILY RAINFALL AND TEMPERATURE JULY 1971 THROUGH JUNE 1973

Date		Rainfall Inches	Air Temp. F High	Air Temp. F Low
March	12	.00	84	60
	13	.00	82	58
	14	.00	85	60
	15	.00	80	63
	16	.00	75	59
	17	.02	82	65
	18	.00	83	62
	19	.00	81	60
	20	.00	82	58
	21	.00	86	60
	22	.00	78	70
	23	.00	78	65
	24	.00	80	62
	25	.00	80	72
	26	.00	80	58
	27	.00	80	55
	28	.04	82	60
	29	.00	81	57
	30	.00	82	56
	31	2.25	76	66
April	1	.00	75	54
	2	.00	72	53
	3	.00	77	58
	4	.00	80	57
	5	.00	84	67
	6	1.30	82	63
	7	.00	84	62
	8	.00	86	64
	9	.00	86	63
	10	.02	82	60
	11	.00	84	63
	12	.00	85	63
	13	.00	84	67
	14	.00	90	69
	15	.00	89	69
	16	.00	88	69
	17	.00	86	65
	18	.00	84	73

Date		Rainfall Inches	Air Temp. F High	Air Temp. F Low
April	19	.00	85	70
	20	.00	90	70
	21	.00	94	74
	22	.00	92	72
	23	.18	90	75
	24	.00	85	72
	25	.00	87	64
	26	.00	74	59
	27	.00	76	60
	28	.00	80	62
	29	.00	83	60
	30	.42	80	60
May	1	.00	80	70
	2	.00	86	69
	3	.03	84	71
	4	.00	89	70
	5	.00	87	70
	6	.00	80	74
	7	.00	88	72
	8	.45	84	69
	9	.11	83	68
	10	.02	84	68
	11	.50	85	70
	12	.00	85	67
	13	.00	87	73
	14	.00	85	76
	15	.00	92	74
	16	.31	91	74
	17	.08	80	70
	18	.25	85	70
	19	.19	90	70
	20	.00	89	67
	21	.00	80	70
	22	.00	89	66
	23	.00	85	67
	24	.19	90	66
	25	.00	80	69
	26	.00	83	70
	27	.00	89	71
	28	.00	85	70
	29	.00	90	72
	30	.00	89	68
	31	.31	89	70

TABLE 25 (CONTINUED)

DAILY RAINFALL AND TEMPERATURE JULY 1971 THROUGH JUNE 1973

Date		Rainfall Inches	Air Temp. F High	Air Temp. F Low	Date		Rainfall Inches	Air Temp. F High	Air Temp. F Low
June	1	.00	93	72	July	9	.00	95	73
	2	.00	90	75		10	.69	88	74
	3	.00	90	75		11	.00	96	75
	4	.00	85	73		12	.00	96	73
	5	.00	91	74		13	.08	94	74
	6	.00	89	71		14	.18	91	74
	7	.00	89	80		15	.00	89	76
	8	.00	92	76		16	.00	94	75
	9	.00	90	75		17	.46	89	73
	10	.00	89	76		18	.31	91	74
	11	.00	90	72		19	.19	93	76
	12	.00	90	71		20	.28	94	75
	13	.00	92	73		21	.17	91	74
	14	.17	88	72		22	.00	91	74
	15	.00	92	71		23	.00	92	75
	16	.00	89	75		24	.16	90	73
	17	.00	89	74		25	.11	92	74
	18	4.08	91	73		26	.00	89	73
	19	2.40	90	74		27	.00	94	75
	20	.20	91	75		28	.00	96	76
	21	.13	93	74		29	.00	94	75
	22	.00	95	73		30	.00	93	74
	23	.49	92	75		31	.00	91	74
	24	.00	90	76					
	25	.00	95	74	August	1	.00	--	--
	26	.00	98	76		2	.00	--	--
	27	.18	96	76		3	.00	--	--
	28	.00	98	77		4	.12	--	--
	29	.00	96	75		5	.00	--	--
	30	.00	96	76		6	.00	--	--
						7	.00	--	--
July	1	.00	93	76		8	.89	--	--
	2	.00	94	75		9	2.77	--	--
	3	1.86	89	74		10	.00	--	--
	4	.00	91	73		11	.00	--	--
	5	.00	90	74		12	.00	--	--
	6	.00	95	74		13	.00	--	--
	7	.89	90	75		14	.52	--	--
	8	.49	90	74		15	.00	--	--

TABLE 25 (CONTINUED)

DAILY RAINFALL AND TEMPERATURE
JULY 1971 THROUGH JUNE 1973

Date		Rainfall Inches	Air Temp. F High	Air Temp. F Low
August	16	2.60	--	--
	17	2.05	--	--
	18	.00	--	--
	19	.00	--	--
	20	.00	--	--
	21	.00	--	--
	22	.00	--	--
	23	.00	--	--
	24	2.63	--	--
	25	.00	--	--
	26	.00	--	--
	27	.00	--	--
	28	.00	--	--
	29	.00	--	--
	30	1.25	--	--
	31	1.65	--	--
September	1	.00	--	--
	2	.00	--	--
	3	.00	--	--
	4	.00	--	--
	5	.00	--	--
	6	.00	--	--
	7	.00	--	--
	8	.00	--	--
	9	.00	--	--
	10	.00	--	--
	11	.00	--	--
	12	.43	--	--
	13	.00	--	--
	14	.00	--	--
	15	.00	--	--
	16	.00	--	--
	17	.00	--	--
	18	.00	--	--
	19	.00	--	--
	20	.46	--	--
	21	.00	--	--
	22	.00	--	--
	23	.00	--	--
	24	.00	--	--
September	25	.00	--	--
	26	.00	--	--
	27	.00	--	--
	28	.00	--	--
	29	.45	--	--
	30	.00	--	--
October	1	.00	--	--
	2	2.31	--	--
	3	.00	--	--
	4	.00	--	--
	5	.00	--	--
	6	.00	--	--
	7	.00	--	--
	8	.00	--	--
	9	.02	--	--
	10	.00	--	--
	11	.10	--	--
	12	.03	--	--
	13	.00	--	--
	14	.00	--	--
	15	.00	--	--
	16	.15	--	--
	17	.00	--	--
	18	.00	--	--
	19	.00	--	--
	20	.12	--	--
	21	.00	--	--
	22	.00	--	--
	23	.00	--	--
	24	.00	--	--
	25	.00	--	--
	26	.00	--	--
	27	.00	--	--
	28	.00	--	--
	29	.00	--	--
	30	.00	--	--
	31	.00	--	--
November	1	.00	--	--
	2	.00	--	--
	3	.00	--	--

TABLE 25 (CONTINUED)

DAILY RAINFALL AND TEMPERATURE
JULY 1971 THROUGH JUNE 1973

Date		Rainfall Inches	Air Temp. F High	Air Temp. F Low
November	4	.00	--	--
	5	.00	--	--
	6	.91	--	--
	7	1.02	--	--
	8	.11	--	--
	9	.00	--	--
	10	.00	--	--
	11	.00	--	--
	12	.00	--	--
	13	.00	--	--
	14	.00	--	--
	15	.00	--	--
	16	.00	--	--
	17	.00	--	--
	18	.00	--	--
	19	.00	--	--
	20	.00	--	--
	21	.00	--	--
	22	.00	--	--
	23	.00	--	--
	24	.00	--	--
	25	.99	--	--
	26	.00	--	--
	27	1.31	--	--
	28	.00	--	--
	29	.60	--	--
	30	.04	--	--
December	1	.00	67	50
	2	.00	80	62
	3	.00	86	69
	4	.00	89	70
	5	.00	90	75
	6	.00	95	75
	7	.00	90	74
	8	.00	90	70
	9	.00	85	65
	10	.00	83	63
	11	.00	84	70
December	12	.00	85	70
	13	.00	90	74
	14	.00	89	70
	15	.12	78	69
	16	.00	60	45
	17	.00	67	49
	18	.26	66	48
	19	.00	72	51
	20	.02	68	55
	21	.00	62	52
	22	.47	75	60
	23	.00	72	59
	24	.00	76	52
	25	.00	75	49
	26	.16	78	50
	27	.00	70	52
	28	.00	70	42
	29	.00	75	46
	30	.00	80	55
	31	.00	85	60
1973				
January	1	.00	89	62
	2	.00	75	60
	3	.00	85	70
	4	.00	89	63
	5	.00	86	65
	6	.00	80	65
	7	.00	84	52
	8	.00	60	49
	9	.00	65	55
	10	.00	65	55
	11	.80	60	42
	12	1.12	60	40
	13	.00	65	40
	14	.00	68	42
	15	.00	65	43
	16	.30	75	60
	17	.00	75	60
	18	.00	80	60

DAILY RAINFALL AND TEMPERATURE
JULY 1971 THROUGH JUNE 1973

Date		Rainfall Inches	Air Temp. F High	Air Temp. F Low
January	19	.00	85	55
	20	.00	84	53
	21	.00	80	59
	22	.78	80	60
	23	.59	78	63
	24	1.14	80	62
	25	.00	79	60
	26	.00	75	58
	27	.00	75	55
	28	.00	70	49
	29	.75	60	39
	30	.00	65	39
	31	.00	70	50
February	1	.00	73	60
	2	.00	70	55
	3	.00	79	48
	4	.00	80	50
	5	.00	81	52
	6	.00	80	55
	7	.00	85	60
	8	.00	85	62
	9	.00	70	50
	10	.00	80	42
	11	.00	70	45
	12	2.15	70	55
	13	.00	80	58
	14	.00	85	55
	15	.00	80	59
	16	.00	85	55
	17	.00	70	45
	18	.00	70	55
	19	.44	80	59
	20	.00	79	50
	21	.00	78	45
	22	.00	76	50
	23	.00	70	48
	24	.00	75	45
	25	.00	80	59
	26	.00	85	65

Date		Rainfall Inches	Air Temp. F High	Air Temp. F Low
February	27	.00	90	58
	28	.00	85	55
March	1	.00	80	60
	2	.00	65	64
	3	.00	85	69
	4	.00	90	75
	5	.00	90	75
	6	.00	95	73
	7	.00	85	70
	8	.00	70	65
	9	.00	90	72
	10	.00	95	74
	11	.31	90	70
	12	.00	89	69
	13	.00	90	75
	14	.00	95	75
	15	.00	98	72
	16	.00	92	59
	17	.12	82	65
	18	.00	70	50
	19	.00	79	50
	20	.00	85	60
	21	.20	87	75
	22	.00	90	58
	23	.00	80	54
	24	.00	80	55
	25	.00	83	60
	26	1.25	85	63
	27	.00	81	62
	28	.00	91	72
	29	.00	80	70
	30	.46	90	75
	31	.00	89	79
April	1	.27	91	65
	2	.00	95	72
	3	.00	96	83
	4	.00	86	64
	5	.00	80	62

TABLE 25 (CONTINUED)

DAILY RAINFALL AND TEMPERATURE
JULY 1971 THROUGH JUNE 1973

Date		Rainfall Inches	Air Temp. F High	Air Temp. F Low
April	6	.00	90	70
	7	.00	98	75
	8	1.96	87	60
	9	.00	88	66
	10	.00	79	52
	11	.00	80	51
	12	.00	90	54
	13	.00	96	60
	14	.00	98	64
	15	.00	90	64
	16	.00	90	62
	17	.00	96	66
	18	.00	94	67
	19	.00	93	65
	20	.00	91	69
	21	.00	92	69
	22	.00	97	64
	23	.00	99	69
	24	.00	97	74
	25	.00	96	75
	26	.00	100	73
	27	1.33	95	62
	28	.00	85	55
	29	.00	96	58
	30	.00	95	64
May	1	.00	94	69
	2	.00	95	70
	3	.00	104	72
	4	.00	98	63
	5	.00	99	60
	6	.00	102	70
	7	.00	100	70
	8	.00	101	80
	9	.29	90	78
	10	.56	100	73
	11	.00	105	71
	12	.00	110	72
	13	.00	110	75
	14	.17	101	72
May	15	.00	102	72
	16	.01	88	58
	17	.00	95	65
	18	.00	101	70
	19	.00	100	68
	20	.00	100	70
	21	.04	103	64
	22	.00	106	74
	23	.00	--	--
	24	.00	--	--
	25	.00	--	--
	26	.00	--	--
	27	.00	--	--
	28	.93	--	--
	29	.00	--	--
	30	.00	--	--
	31	1.07	--	--
June	1	.00	100	76
	2	.00	106	76
	3	.00	110	79
	4	.00	100	75
	5	.00	105	74
	6	.00	106	73
	7	.00	100	80
	8	.00	100	76
	9	.00	99	81
	10	.00	100	80
	11	.48	108	79
	12	.00	110	80
	13	.00	111	80
	14	.00	110	80
	15	.00	106	80
	16	.00	105	80
	17	.00	105	80
	18	1.44	108	79
	19	.32	106	80
	20	.04	106	78
	21	.00	109	80
	22	.00	104	80

TABLE 25 (CONTINUED)

DAILY RAINFALL AND TEMPERATURE
JULY 1971 THROUGH JUNE 1973

Date		Rainfall Inches	Air Temp. F High	Low
June	23	.00	107	79
	24	.00	105	80
	25	1.08	99	76
	26	.00	98	78
	27	.95	107	76
	28	.00	105	77
	29	.00	100	79
	30	.45	106	80

TABLE 26

PRECIPITATION SUMMARY

Inches

Month	Normal*	Maximum*	Minimum*	1970**	1971**	1972 **	1973 **
January	2.00	6.44	.15	4.05	.45	.70	5.48
February	2.42	6.77	.10	6.77	2.98	6.03	2.59
March	3.41	10.54	.16	3.66	1.46	2.61	2.34
April	3.42	6.18	.28	.45	1.52	1.92	3.29
May	3.57	8.58	.43	4.08	4.31	2.44	3.07
June	6.96	18.28	1.97	4.92	4.39	7.67	4.76
July	8.00	19.57	3.83	5.97	8.29	5.87	7.99
August	6.94	15.19	3.20	5.91	4.21	14.48	--
September	7.23	15.87	1.65	3.25	.85	.91	--
October	3.96	14.51	.35	2.60	10.93	2.73	--
November	1.57	6.39	.03	.24	3.13	5.10	--
December	1.89	4.66	Trace	2.06	2.26	1.03	--
Yearly	51.37	59.65***	34.55***	43.96	44.78	51.49	--

*U.S. Weather Service, Herndon Airport, 1931 - 1960.
**U.S. Weather Service, Herndon Airport, January 1970 - July 1971; Orange County Sanitary Landfill Weather Station, August 1971 - July 1973.
***U.S. Weather Service, Herndon Airport, 1932 - 1969.

TABLE 27

GROUND WATER LEVEL
OCTOBER 1971 THROUGH JUNE 1973

Feet Above Mean Sea Level

Date	Well Numbers and Surface Elevation								
	4 (84.17)	5 (84.00)	9 (83.24)	10 (84.42)	16 (82.73)	19 (81.91)	20 (81.72)	23 (81.24)	24 (80.77)
10-4-71	—	77.97	—	78.38	77.03	—	76.34	—	—
11-1-71	82.06	79.30	80.35	—	—	81.16	—	80.59	77.59
11-15-71	—	—	—	—	—	—	75.84	—	77.59
12-7-71	81.81	—	82.35	—	—	81.16	—	80.75	—
1-13-72	80.56	77.97	80.35	—	76.03	79.82	75.68	79.17	76.80
2-12-72	80.89	—	—	—	—	—	—	—	77.17
2-21-72	—	—	81.76	—	—	80.57	—	80.42	—
4-3-72	80.66	—	—	—	—	—	—	—	76.92
5-8-72	78.39	77.05	—	77.97	—	—	—	—	75.46
6-15-72	—	77.22	79.18	77.93	75.95	77.57	—	77.17	—
6-26-72	—	78.13	—	79.13	—	—	—	—	—
7-17-72	81.14	78.22	81.01	79.30	75.95	80.41	75.51	—	—
9-18-72	79.64	78.30	80.60	80.13	75.70	79.91	75.93	79.34	76.67
10-12-72	79.14	77.70	80.93	79.55	75.95	80.24	75.93	79.92	77.07
11-15-72	—	76.80	—	78.55	—	—	—	—	75.76
12-5-72	78.89	77.47	81.35	78.05	75.95	79.74	75.97	79.92	76.84
1-12-73	78.31	77.55	82.31	78.80	75.95	81.07	75.84	80.84	74.99
2-28-73	79.22	77.38	79.88	78.55	75.95	79.74	76.01	79.92	77.38
3-13-73	79.17	77.38	80.37	78.70	76.07	79.98	76.30	76.99	77.08
4-11-73	79.09	77.38	81.43	78.80	76.07	80.49	76.26	80.09	76.84
5-9-73	77.89	77.22	80.31	78.51	76.08	79.41	76.18	78.92	76.34
6-28-73	78.22	77.55	80.31	78.43	76.33	79.99	76.24	79.42	76.59